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## UNITED STATES PUBLIC HEALTH SERVICE

HUGH S. CUMMINGS, *Surgeon General*

### DIVISION OF SANITARY REPORTS AND STATISTICS

A. S. CUMMINGS, Chief of Division

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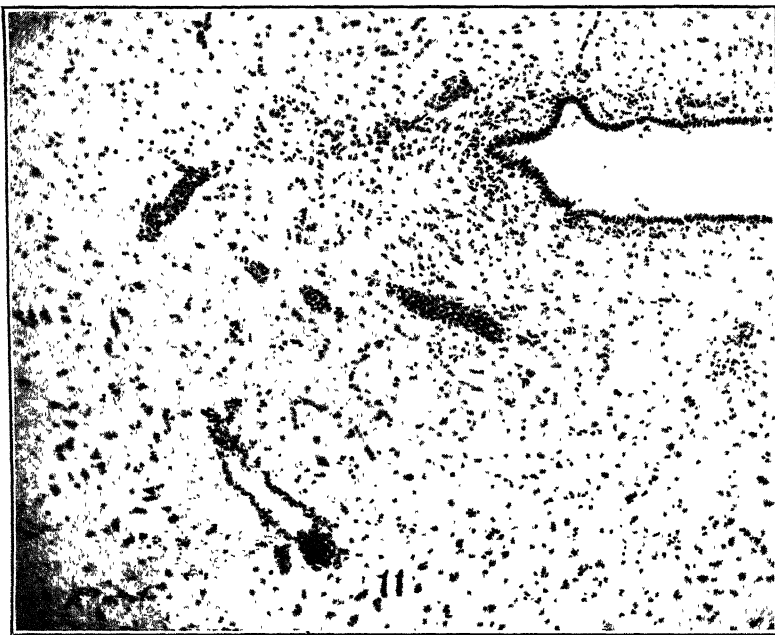
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Monkey 39. Mesencephalon. About the aqueduct there are several blood vessels the sheaths of which are packed by lymphocytes and a few leucocytes. There is pronounced reaction on the part of the neuroglia

# PUBLIC HEALTH REPORTS

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No. 1

## CANCER MORTALITY IN THE TEN ORIGINAL REGISTRATION STATES

Trend for the Period 1900-1920<sup>1</sup>

By J. W. SCHERESCHEWSKY, Surgeon, United States Public Health Service

The progressive increase in the cancer death rates shown in the mortality statistics in practically all civilized countries has invited the serious attention of students of the public health. The more optimistic are of the opinion that these increases in the death rate may be accounted for by improvements in medical diagnosis, increase in the accuracy of vital statistics in general, greater precision in filling out death returns, changes in the age distribution of the population, and similar factors.

Yet others are inclined to a gloomier view of the situation. They hold that the magnitude of the observed increases in the death rate is too great, too general in its distribution, to be accounted for in any such way, so that the apparent is also an actual increase in the cancer mortality.

Because of the importance and interest of this question, it was thought well worth while to attempt a critical analysis of the course of the cancer mortality in the 10 original registration States, i. e., Connecticut, Indiana, Maine, Massachusetts, Michigan, New Hampshire, New Jersey, New York, Rhode Island, and Vermont. This area was chosen because it is the only one available in this country for continuous study over the selected period of 21 years, as the other States now forming the registration area were added from time to time to the original 10.

Moreover, these States, with the exception of Indiana and Michigan, were all situated in a similar geographic section. The population, about 19,800,000 in 1900, and more than 27,000,000 in 1920, represents about 25 per cent of the total population of the United States, and hence is sufficiently large to give considerable mass value to the data. Besides this, the population is about as homogeneous a group as we are likely to get in a country made up of such diverse racial stocks as ours, and it exhibited about the same changes in racial composition, owing to immigration during the period of observation.

<sup>1</sup> Read before the Section on Preventive and Industrial Medicine and Public Health at the seventy-sixth annual session of the American Medical Association, Atlantic City, N. J., May, 1925. From the Journal of the American Medical Association, vol. 85, No. 18, October 17, 1925, pp. 1175-1179.

The source of the data for analysis was the published mortality statistics of the United States Bureau of the Census, and the decennial census reports.

The following method of study and analysis was employed:

Taking the enumerated populations of "all ages," and also for the specific age groups "under 5 years," 5-9, 10-19, 20-29, 30-39, 40-49, 50-59, 60-69, "70 years and over" as given in the United States census reports of 1900, 1910, 1920, the intercensal population of all ages and by specific age groups was estimated by the arithmetical method. In estimating the population, compilations were made as of January 1 instead of July 1, because of slightly greater convenience, while at the same time no sensible error in the comparative validity of the tables was introduced. Since specific age groups were dealt with, the population of unknown age was omitted from the estimated figures.

General cancer death rates and specific death rates were then computed, first, for all forms of cancer and then for cancer by the seat of organ affected, the international classification<sup>1</sup> being used. In the case of cancer of the breast and cancer of the female genital organs, rates were computed on the basis of the estimated female population, as cancer of the breast is almost wholly, and cancer of the female genital organs exclusively, confined to that sex.

The extent of death certification by medical men, the changes and improvements in the practice of death certification and in diagnosis, the corrections to be applied for changing age distribution, and finally changes in racial stock due to immigration and the effects of these factors on the mortality rates were each considered in their turn. The results of this analysis and interpretation of the data are now in the process of publication. They are entirely too numerous to be given in extenso here. However, by using a somewhat different method of age grouping, the main results of the inquiry, their interpretation, and the resulting conclusions may be briefly presented.

The population aged 40 years and over is the immigrant group, so far as cancer mortality is concerned. In 1900, age under consideration, this age group furnished about 25 per cent of the States and in 1920 about 92.5 per cent of all the cancer per cent,

<sup>1</sup> In the international classification of causes of death, cancers are the "cancer and other malignant tumors" which, in turn, is subdivided. The general rubric is (1) cancer of the stomach and liver; (2) cancer of the peritoneum, in the buccal cavity; (3) cancer of the female genital organs; (4) cancer of the breast; (5) cancer of the rectum; (6) cancer of the sigmoid; (7) cancer of other organs or of organs not specified. It should be noted that this classification was in form for the 21 years prior to 1910, we find the rubrics "cancer of the mouth" and "cancer of the intestines" in the place of "cancer of the buccal cavity" and "cancer of the peritoneum, rectum, and rectum." These differences in classification may have had some effect on the figures, but probably small.

The population 40 years and over of the 10 original States was 5,313,459 in 1900; in 1920, 8,145,709. Its distribution given in Table 1.

TABLE 1.—*Age distribution of 10 original registration States*

Age group	1900		1920	
	Population	Per cent	Population	F
40-49.....	2,228,723	41.91	3,421,204	42.00
50-59.....	1,534,625	28.88	2,431,602	29.85
60-69.....	963,991	18.14	1,453,490	17.84
70.....	550,120	11.03	839,413	10.30
Total.....	5,313,459	99.99	8,145,709	99.99

From this age distribution the somewhat unexpected fact is noted that, in spite of the increase in the median age of the general population that has taken place since 1900, in the population aged 40 years and over, the proportion of elderly persons 60 years and over was greater in 1900 than it was in 1920 (29.17 and 28.14 per cent, respectively). If we redistribute the 1920 population of 40 years and over according to the 1900 percentage composition and apply the appropriate 1920 cancer death rates to each of the resulting age groups, it is found that instead of the 25,368 that were reported for this section of the population, 25,806 deaths would have occurred. This corresponds to a rate of 316.8 per 100,000, or 5.4 points higher than the observed 1920 rate of 311.4.

From this it follows that the cancer death rates in this group of the population may be compared for the period of 1900-1920 without the necessity of introducing any correction for a changing age distribution. Any correction for this factor would have the effect of slightly increasing instead of lowering the rates of the later years of the period. Therefore, we arrive immediately at the conclusion that any increase observed in the cancer deaths of this group of the population are independent of changes that may have taken place in the age distribution.

Chart 1 and Table 2 show the changes that have occurred in the death rates from cancer of all forms, and by site of the organ affected in the population 40 years and over, the rates for cancer of the breast and cancer of the female genital organs being based on the female population 40 years and over, which has practically the same age distribution as that of the male.

From this chart and table it is obvious that pronounced increases have taken place in the death rate from cancer of all forms, and in nearly all the cancers of the different organ seats, the only exception

ic, "other organs or organs not specified," of which said later.

ing the initial and the final rates, the percentage increases Table 3 are observed. It is apparent that with the exception of the skin and cancers of other organs or organs not specified, the increases have been pronounced and striking. Cancers of the peritoneum, intestines, and rectum have shown the greatest

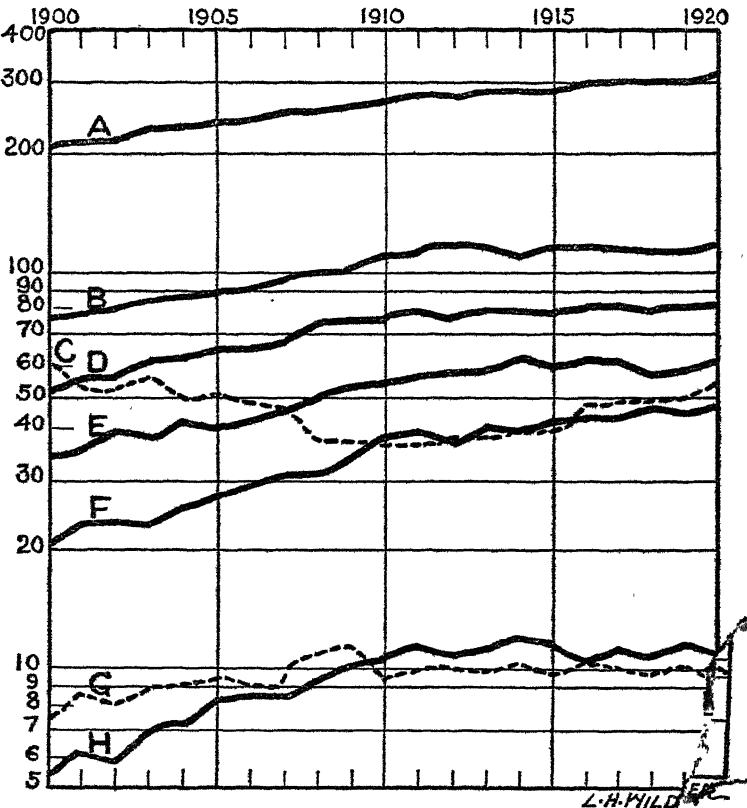


CHART 1.—Death rate, per hundred thousand of population, from all forms of cancer, and by site of organ affected, in age group 40 years and over, in the registration States of 1900-1920: A, cancer, all forms; B, stomach and liver; C, other organs or organs not specified; D, female genital organs; E, female breast; F, peritoneum, intestines, and rectum; G, skin; H, buccal cavity.

advance, the percentage increase over the 1900 rate being 148.4. Cancers of the skin, on the other hand, as shown by the chart, have shown no increase in the rate since about 1909, while the curve for other organs, or organs not specified, is different from that for other varieties of cancer, in that the curve shows a pronounced downward concavity.



TABLE 2.—*Death rate from cancer*<sup>1</sup>

Year	Cancer, all forms	Buccal cavity	Stomach and liver	Periton- eum, in- testine and rectum	Female <sup>2</sup> genital organs	Breast <sup>2</sup>	Skin	Other or un- specified organs
1900.....	212.0	5.50	77.1	19.0	51.0	34.4	7.36	60.75
1901.....	218.1	6.13	78.1	23.7	56.7	36.6	8.59	55.4
1902.....	217.4	6.0	80.6	23.69	55.9	39.5	8.06	51.65
1903.....	227.9	6.84	85.0	22.95	60.4	39.5	8.79	54.85
1904.....	232.2	7.25	89.2	25.03	61.9	42.3	8.98	50.4
1905.....	238.8	8.06	90.8	27.48	63.6	41.2	9.13	51.4
1906.....	240.0	8.11	91.6	29.2	62.6	42.7	8.79	50.3
1907.....	248.5	8.35	96.2	30.91	65.8	46.6	9.95	47.45
1908.....	251.0	9.14	99.3	31.44	74.5	50.1	10.91	38.6
1909.....	259.0	10.08	102.1	34.9	75.7	53.0	11.0	37.87
1910.....	270.8	10.4	109.0	38.28	77.8	54.2	9.46	38.61
1911.....	273.8	11.35	107.5	39.5	80.7	55.9	9.31	38.12
1912.....	273.0	10.82	112.5	38.49	78.8	57.2	10.07	38.91
1913.....	286.0	10.98	114.0	42.2	82.3	56.5	9.69	40.5
1914.....	286.0	12.24	107.0	41.88	83.1	64.0	10.19	42.11
1915.....	293.2	11.51	114.5	44.38	81.2	59.8	9.81	43.45
1916.....	300.0	10.54	115.1	44.96	83.6	61.6	10.47	47.21
1917.....	301.4	11.25	114.1	45.0	84.3	62.0	10.13	48.55
1918.....	299.7	10.74	113.6	46.95	82.6	58.3	9.57	49.03
1919.....	302.3	11.25	114.1	45.45	84.4	59.5	10.11	50.2
1920.....	311.4	11.18	116.2	47.2	84.0	62.8	9.38	54.9

<sup>1</sup> The rate given is that for each 100,000 of population, aged 40 years and over, all forms and by site of organ affected, in the 10 registration states of 1900, for the period 1900-1920.

<sup>2</sup> These rates figured on women, aged 40 and over.

TABLE 3.—*Percentage increases in death rate from cancer of all forms*

	Death rate per 100,000		Per cent increase
	1900	1920	
Cancer, all forms.....	212.0	311.4	46.9
Buccal cavity.....	5.5	11.18	103.4
Stomach and liver.....	77.1	116.2	50.7
Peritoneum, intestines and rectum.....	19.0	47.2	148.4
Female genital organs <sup>1</sup> .....	51.0	84.0	64.7
Breast <sup>2</sup> .....	34.4	62.8	82.6
Skin.....	7.36	9.38	27.4
Other organs or organs not specified.....	60.75	54.9	<sup>2</sup> 9.6

<sup>1</sup> Female population 40 years and over.

<sup>2</sup> Decrease.

As explained by the Census Bureau, the form of this curve is undoubtedly due to increased precision in stating the site of the malignant growth on the death certificate, the fuller information resulting from the efforts of the Census Bureau and local registrars to improve death registration, permitting the assignment of a larger proportion of cancers to the proper seat of the disease.

Reference to the curve, however, shows us that apparently this gain in accuracy, which produced a striking drop in the mortality rate under this rubric in the period 1900-1909, became stabilized at about that time, as the curve for this classification of cancer shows a steady rise, the percentage increase in the rate from 1910 (the low point) to 1920 being 47 per cent. Since the precision of death certification was presumably as great in 1920 as in 1910, this rise in the

death rate curve from that year must be due to an increase in the reported number of deaths of persons 40 years and over from cancers of this class. The types of cancer classified by the Census Bureau under the rubric "cancer of other organs or organs not specified" are cancer of the larynx, lungs and pleura, pancreas, kidneys and suprarenals, prostate, bladder, brain, bones (except jaw), testes, and others of this class.

On the face of things, in the population 40 years and over, and independent of any change in age distribution, there has been a pronounced increase in all forms of cancer and of cancer of nearly all the specified sites. Before accepting this as an actual increase in the cancer mortality, however, we should subject these data to some interpretation.

The validity of mortality returns are, of course, importantly affected by the extent to which causes of death are reported by members of the medical profession and not by laymen, as is too often permitted.

However, so far as the States in question are concerned, inquiry showed that practically 100 per cent of death returns for the period under consideration were signed by duly licensed physicians, and consequently the diagnostic error was that inherent in the diagnoses of the medical profession in general, uncomplicated by errors due to the reporting of deaths by laymen.

Statistically, therefore, the mortality statistics of the 10 original registration States have a high degree of validity and from this standpoint are much more reliable than those of certain foreign countries that permit laymen to certify to causes of death.

As Willcox points out, another factor that may alter the reliability of death returns is the extent of available medical services. In regions where physicians are scarce the death returns are less trustworthy than where they are plentiful.

From this standpoint, however, the 10 States considered have little to be desired. In 1906 the total number of physicians in these States was 33,127, a ratio to the population of 1:666. In 1921 this number was 39,389, a ratio of 1:708.

From this it is evident that in these registration States the ratio of medical men to the general population is very high, more than twice as high, for instance, as in England or in Germany. This betokens a high degree of availability of medical services for diagnosis and treatment of the sick. Moreover, we could not ascribe part of the observed increase in the cancer death rates to increase in the availability of medical services, as the ratio of physicians to the general population was slightly greater during the early years of the period of observation than it was later.

Consequently, since no correction resulting either from lack of medical certification or available medical services need be applied to these rates, the remaining elements that should be examined for trustworthiness, and suitably corrected if need be, consist in allowances that should be made for improvements in the precision and accuracy in returning causes of death, progress in medical diagnosis, and the influence on the cancer death rate due to the changes wrought in the racial stock by immigration.

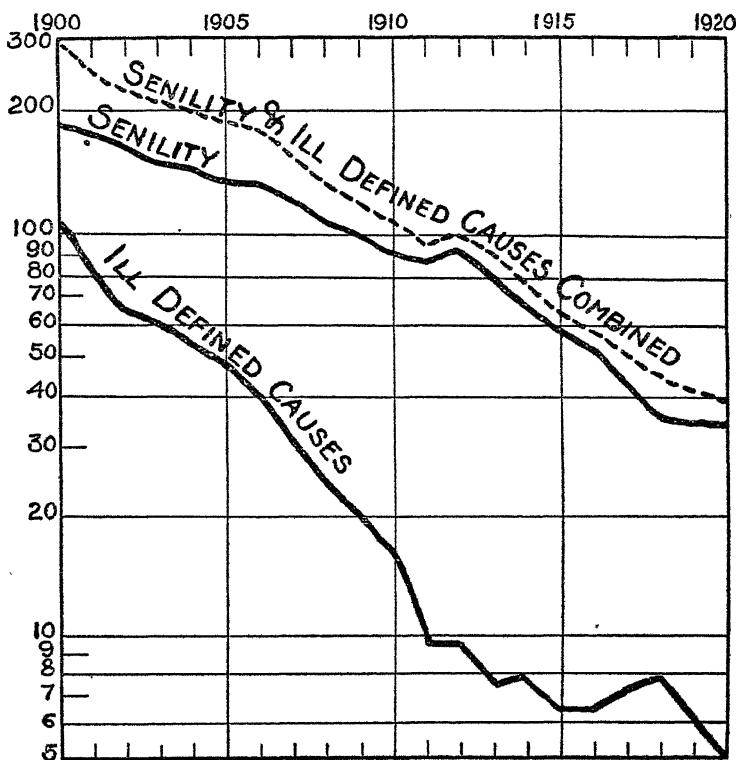


CHART 2.—Death rate per hundred thousand population, from senility, ill-defined causes, and the combined rate, in age group 40 years and over, in the registration States of 1900 for the period 1900-1920.

Even casual examination of the mortality returns over a series of years shows that a pronounced change in the direction of greater precision and detail in the filling out of death certificates must have taken place. An important improvement in this direction is demonstrated, as pointed out by Willcox, by Howard, and by others, but the great changes that have taken place in the deaths reported in this age group are due to "indefinite" causes and to senility. This is well shown in Chart 2.

While the general death rate in persons 40 years and over has shown but little change during the period of observation, this chart shows that the death rate from "ill-defined" causes fell during the 21-year period from 108 to 5, a decrease of more than 95 per cent. In similar fashion, the mortality rate from senility declined from 185 in 1900 to 34.1 in 1920, a decrease of nearly 82 per cent.

This drop in the combined death rate from these causes has been from 293 in 1900 to 39.1 in 1920, a decrease of nearly 87 per cent.

Since there has been no significant change during the period of observation in the general death rate of persons 40 years and over the great reduction in the death rates from indefinite causes and senility must have been effected by a gradual redistribution of deaths formerly reported under these rubrics to other more precise classifications.

The observed reduction in the reported deaths from these causes is thus good testimony to increasing accuracy and precision in death certification. If the 1920 rate for deaths from ill-defined causes and for senility had prevailed in 1900, instead of the 15,568 deaths reported under these rubrics, only 2,077 deaths would have been attributed to these causes in the population 40 years and over. For that year, this would leave 13,491 deaths to be redistributed among other more precise classifications. Here, then, is a source of excess deaths which, if all assigned to cancer, would much more than obliterate any advances in the cancer death rate.

Of course, there is no justification for any such extreme correction of the cancer death rate, as besides cancer, other diseases, such as diseases of the circulatory system, have shown even more dramatic increases than cancer in this age group. However, we must assume that a certain proportion of the deaths certified to formerly as due to ill-defined causes and to "old age" were in reality due to cancer. It is of interest to see what adjustment must be made in the cancer death rate if we assign a fair proportion of these deaths to the cancer classification.

Since the number of deaths in persons under 60 reported as due to senility is negligible, we must divide our age group 40 and over into two subgroups, one aged 40-59, and the other 60 and over.

In the first group, in 1900 there were 1,331 deaths reported as due to ill-defined causes and senility, as against 152 in 1920. Had the 1920 rate prevailed in 1900, only 98 deaths would have been reported as due to these causes, leaving a difference of 1,233 deaths to be distributed among other causes of death. In 1920 the deaths from cancer formed 13.7 per cent of all deaths in this group with the exception of those due to senility and to ill-defined causes. So, if for the sake of liberal adjustment we add 13.7 per cent of the excess deaths to be redistributed, 169 additional deaths attributable to cancer

result, to be added to the 5,043 reported deaths, making a total of 5,212 deaths. The adjusted rate resulting from this addition is 138.5 instead of 134.

As the 1920 rate was 176.7, the difference between this and the adjusted 1900 rate for this group is 38.2 instead of 42.7 points. Since 38.2 is about 89.5 per cent of 42.7, a little more than 10 per cent of the increase in the cancer death rate in this group may be ascribed to greater precision in certifying causes of death.

Treating the age group 60 and over in similar fashion, we find that in 1900, 14,237 deaths were reported as due to senility and to ill-defined causes. Substituting the 1920 rate of 13.2, only 3,033 deaths would have resulted, leaving 12,188 deaths to be reassigned under more definite classifications. Since, in 1920, 10.6 per cent of all deaths in this age group (except those due to senility and to ill-defined causes) were due to cancer, 10.6 per cent of 12,188 gives 1,292 deaths to be added to the 6,220 reported cancer deaths. This gives an adjusted rate of 484.6, as compared with the observed rate of 401.3. The differences between the reported and adjusted 1900 rate and the 1920 rate are 253.9 and 170.6, respectively, corresponding to percentage increases of 63.3 and 35.2.

Since 170.6 is about 67 per cent of 253.9, 33 per cent of the observed increase could be explained by transfer to the cancer column of deaths in which the cause was erroneously reported as due to senility or other ill-defined causes.

In making this correction, it has been assumed that the excess deaths are assigned to other causes in the proportion these have to the total deaths from all causes in each age group, the 1920 percentage of cancer, the highest observed, being used in this case.

Willcox believes that this method of correction tends to underestimate rather than overestimate the transfer, since the modern tendency is away from vague and indefinite to specific and definite causes of death. Hence, he believes that there has been a greater tendency to certify cancer, with the increase in precision of death certification, than would be indicated by its chance frequency as a cause of death.

It is believed, however, that the method of correction is liberal for the following reasons: In the first place, the 1920 percentage that cancer formed of all deaths is used, thus representing the more nearly stabilized practices of present day death certification. The circumstance is ignored that, if cancer has actually increased, there would naturally be to-day a higher percentage of cancer among all deaths than formerly.

Again, we include in the cancer deaths a large number of deaths due to cancer of accessible sites, such as the buccal cavity, breast, female genital organs and skin, about which, as is conceded, errors, so far as

death certification is concerned, hardly ever occur. In fact, with regard to such types of cancer, it may be concluded that throughout the entire period of observation the tendency to report a vague and indefinite, rather than a specific cause of death was negligible as compared to other varieties of cancer, and very much less than for other causes of death, such as organic diseases of the heart.

There is still another correction that must be discussed. While the cancer death rate has been increasing, that due to nonmalignant tumors has been falling. In 1900, the rate was a little over 12 per hundred thousand for persons 40 years and over, while in 1920 it was but 7.9. Had the latter rate prevailed in 1900, only 420 instead of 646 deaths would have occurred. This gives a difference of 226 deaths reported as nonmalignant but which, presumably, were due to cancer.

Let us now review briefly how matters stand as to the various adjustments that should be made in this group.

TABLE 4.—*Redistribution*

Age group	Transfers to cancer from—	Deaths
40-59 years.....	"Ill-defined" deaths.....	169
60 years.....	"Ill-defined" deaths and senility.....	1,262
40 years.....	Nonmalignant to malignant tumors.....	226
	Total.....	1,657

In regard to changing age distribution, it has already been pointed out that if the population aged 40 and over were redistributed according to the age constitution prevailing in 1900, the 1920 rate of 311.4 should be somewhat increased, to 316.8. This rate is greater than the observed rate of 212 in 1900 by 49.5 per cent. In 1900 there were reported 11,263 cancer deaths in this group. As a result of the previous computations, the number of deaths given in Table 4 should be added to this figure.

This total, added to the 11,263 already reported, gives 12,950 deaths. This yields a death rate per hundred thousand of 243.9, 31.9 points higher than the observed rate of 212.

This adjusted rate is less than the 1920 rate adjusted for change in age distribution of 316.8 by 72.9 points. This corresponds to an increase of 29.9 instead of 49.5 per cent. As 72.9 is about 69.5 per cent of 104.8 (the difference between the 1920 adjusted and the 1900 observed rate), a little more than 30 per cent of the increase in this age group could be attributed to greater precision and more accuracy in returning the causes of death.

One aspect that must be considered in connection with the increase in cancer mortality is the extent to which general improvement in diagnostic skill may have contributed to such increase. It must, however, be borne in mind that here we are dealing, not with im-

provement in the early diagnosis of cancer, when there is still hope of arresting the disease, but with the diagnosis of cancer in its terminal stages.

From this standpoint, and especially in the recognition of cancers of the accessible sites, such as the buccal cavity, the breast, and the female genital organs, it is doubtful whether the physicians of 1900 were much, if at all, inferior to their brethren of to-day.

Yet the death rates of some of these cancers of accessible sites, such as the buccal cavity, the breast, and the uterus, show a higher percentage increase than that of an inaccessible site, such as cancer of the stomach and liver.

This is shown by the following percentage increase in the rates: Cancer of the buccal cavity, 103.4 per cent; cancer of the uterus, 64.7 per cent; cancer of the breast, 82.6 per cent; cancer of the stomach and liver, 50.7 per cent.

It is true that the disproportionate increase in the death rate from cancer of the peritoneum, intestine, and rectum would indicate some improvement in the diagnosis of these types of cancer. The evidence just given, however, is somewhat weakened by the failure of skin cancer to advance since about 1910.

While no completely satisfactory explanation is at hand, we may suppose here that the superficial situation, generally lower malignancy, greater amenability both to surgical removal and to radiotherapy, and the much higher average age at death may be cited as factors that would explain the failure of skin cancers to advance *pari passu* with the other varieties.

Before concluding, let me refer briefly to one other point. This is the probable effect on the cancer death rate of the changes in racial stock effected by immigration during this period. It is well known that the character of immigration has been changing. Formerly, immigrants originated mainly from northern and western Europe. Now they come mainly from southern and eastern Europe. The races contributing to the "old" immigration have been the English, Celtic, Teutonic, and Scandinavian. The predominant racial stocks in the "new" immigration are Italian and Slavic.

Since the reported cancer death rates in the latter stocks, so far as statistics are available, seem lower, and certainly are no higher than in the racial stock that originated the old immigration, we may assume that the changes in racial stock due to immigration had, if anything, a tendency to lower rather than to raise the prevailing cancer death rates.

#### CONCLUSIONS

1. There has been a pronounced increase in the observed death rate from cancer in persons 40 years and over in that part of the United States known as the 10 original registration States.

2. Part of this increase (about 30 per cent) is due to greater precision and accuracy in the filling out of death returns.

3. The remainder, however, is an actual increase in the mortality resulting in a death rate between 25 and 30 per cent higher than it was 21 years ago.

### PRINCIPAL CAUSES OF DEATH, 1924

The Department of Commerce announces that 1,173,990 deaths occurred in 1924 within the death registration area of continental United States, representing a death rate of 11.9 per 1,000 population as compared with 12.3 in 1923, 11.8 in 1922 and 11.6 in 1921.

The death registration area (exclusive of the Territory of Hawaii) in 1924 comprised 39 States, the District of Columbia, and 18 cities in nonregistration States, with a total estimated population on July 1 of 99,030,494, or 88.4 per cent of the estimated population of the United States.

The decrease in the rates from influenza, from 44.7 per 100,000 population in 1923 to 19.6 in 1924, and from pneumonia, all forms, from 109 to 98.4, accounts for nearly three-fourths of the decrease in the rate from all causes. Some of the other causes for which the rates decreased are measles, diphtheria, diarrhea and enteritis (under two years), and tuberculosis (all forms).

Slight increases appear in the death rates from diseases of the heart, cancer, and automobile accidents.

The following table shows for the death registration area in continental United States in 1923 and 1924, the total number of deaths and the death rates from leading causes.

Cause of death	Deaths in the registration area (exclusive of Hawaii)			
	Number		Rate per 100,000 estimated population	
	1924	1923	1924	1923
All causes <sup>1</sup> .....	1,173,990	1,193,017	1,185.5	1,230.1
Typhoid and paratyphoid fever.....	6,677	6,635	6.7	6.8
Malaria.....	2,441	2,730	2.5	2.8
Smallpox.....	874	131	0.9	0.1
Measles.....	8,317	10,430	8.6	10.8
Scarlet fever.....	3,122	3,440	3.2	3.5
Whooping cough.....	8,128	9,440	8.3	9.7
Diphtheria.....	9,310	11,735	9.4	12.1
Influenza.....	19,374	43,370	19.6	44.7
Dysentery.....	2,046	3,118	2.0	3.2
Erysipelas.....	2,438	2,593	2.5	2.7
Lebargic encephalitis.....	1,441	1,966	1.5	2.0
Meningococcus meningitis.....	964	1,026	1.0	1.1
Tuberculosis (all forms).....	89,724	90,732	90.6	93.6
Of the respiratory system.....	78,096	79,534	78.9	82.0
Of the meninges, central nervous system.....	4,014	4,010	4.1	4.1
Other forms.....	7,614	7,188	7.7	7.4

<sup>1</sup> Exclusive of stillbirths.



Cause of death	Deaths in the registration area (exclusive of Hawaii)			
	Number		Rate per 100,000 estimated population	
	1924	1923	1924	1923
Syphilis <sup>2</sup> .....	16,248	15,511	16.4	16.3
Cancer and other malignant tumors.....	91,138	86,754	92.0	89.4
Rheumatism.....	4,548	4,064	4.6	4.2
Pellagra.....	2,347	2,352	2.4	2.4
Diabetes mellitus.....	16,453	17,357	16.6	17.9
Meningitis (nonepidemic).....	3,366	3,632	3.4	3.8
Cerebral hemorrhage and softening.....	91,941	87,707	92.8	90.4
Paralysis without specified cause.....	5,657	6,056	6.0	6.2
Diseases of the heart.....	176,671	170,033	178.4	175.3
Diseases of the arteries, atheroma, aneurysm, etc.....	23,278	22,085	23.5	22.8
Bronchitis.....	7,207	8,515	7.3	9.1
Pneumonia (all forms).....	97,403	105,630	98.4	109.0
Respiratory diseases other than bronchitis and pneumonia (all forms).....	8,998	9,550	9.1	9.8
Diarrhea and enteritis (total).....	34,482	38,703	34.8	39.9
Diarrhea and enteritis (under 2 years).....	27,566	31,444	27.8	32.4
Diarrhea and enteritis (2 years and over).....	6,916	7,259	7.0	7.5
Appendicitis and typhlitis.....	14,788	14,345	14.9	14.8
Hernia, intestinal obstruction.....	10,480	10,211	10.6	10.6
Cirrhosis of the liver.....	7,344	7,027	7.4	7.2
Nephritis.....	88,563	87,378	89.7	90.1
Puerperal septicemia.....	5,745	5,657	5.8	5.8
Puerperal causes other than puerperal septicemia.....	9,630	9,448	9.7	9.7
Congenital malformations and diseases of early infancy.....	77,653	75,626	78.4	78.0
Suicide.....	12,061	11,287	12.2	11.6
Homicide.....	8,420	7,878	8.5	8.1
Accidental and unspecified external causes (total).....	75,745	74,131	76.5	76.4
Burns (conflagration excepted).....	6,886	6,508	7.0	6.7
Accidental drowning.....	6,490	5,976	6.6	6.2
Accidental shooting.....	2,571	2,578	2.6	2.7
Accidental falls.....	12,955	12,378	13.1	12.8
Mine accidents.....	2,234	2,207	2.3	2.3
Machinery accidents.....	2,052	2,224	2.1	2.3
Railroad accidents.....	6,430	7,100	6.5	7.3
Street-car accidents.....	1,623	1,757	1.6	1.8
Automobile accidents <sup>3</sup> .....	15,528	14,411	15.7	14.9
Injuries by vehicles other than railroad cars, street cars, and automobiles <sup>4</sup> .....	1,680	1,806	1.7	1.9
Excessive heat (burns excepted).....	409	529	0.4	0.5
Other external causes.....	16,878	16,662	17.0	17.2
All other defined causes.....	109,646	107,402	110.7	110.7
Unknown or ill-defined causes.....	17,536	16,638	17.7	17.2

<sup>2</sup> Includes tabes dorsalis (locomotor ataxia) and general paralysis of the insane.

<sup>3</sup> Does not include deaths from collisions with steam and street cars.

<sup>4</sup> Includes airplane, balloon, and motor-cycle accidents.

## DEATHS DURING WEEK ENDED DECEMBER 19, 1925

*Summary of information received by telegraph from industrial insurance companies for week ended December 19, 1925, and corresponding week of 1924. (From the Weekly Health Index, December 22, 1925, issued by the Bureau of the Census, Department of Commerce)*

	Week ended Dec. 19, 1925	Corresponding week, 1924
Policies in force.....	62,410,497	57,951,439
Number of death claims.....	12,148	11,548
Death claims per 1,000 policies in force, annual rate..	10.1	10.4

Deaths from all causes in certain large cities of the United States during the week ended December 19, 1925, infant mortality, annual death rate, and comparison with corresponding week of 1924. (From the Weekly Health Index, December 23, 1925, issued by the Bureau of the Census, Department of Commerce)

City	Week ended Dec. 19, 1925		Annual death rate per 1,000 corresponding week, 1924	Deaths under 1 year		Infant mortality rate week ended Dec. 19, 1925 <sup>2</sup>
	Total deaths	Death rate <sup>1</sup>		Week ended Dec. 19, 1925	Corresponding week, 1924	
Total (65 cities).....	7,112	13.0	13.2	769	808	8.63
Akron.....	40			3	6	33
Albany.....	52	22.7	14.1	3	3	65
Atlanta.....	75			10	12	
White.....	44			7		
Colored.....	34	( <sup>3</sup> )		3		
Baltimore.....	204	13.4	16.4	15	31	45
White.....	160			11		40
Colored.....	44	( <sup>3</sup> )		4		64
Birmingham.....	79	20.0	22.6	3	12	
White.....	46			1		
Colored.....	33	( <sup>3</sup> )		2		
Boston.....	231	13.4	14.4	31	31	82
Bridgeport.....	33			6	6	96
Buffalo.....	145	13.7	14.2	20	17	81
Cambridge.....	31	14.4	13.5	6	1	100
Camden.....	30	12.2	11.1	4	5	64
Chicago.....	702	12.2	12.8	80	100	71
Cincinnati.....	139	17.7	15.6	17	13	101
Cleveland.....	154	10.2	12.7	30	34	75
Columbus.....	65	12.1	14.8	3	7	28
Dallas.....	61	16.4	14.7	18	7	
White.....	51			16		
Colored.....	10	( <sup>3</sup> )		2		
Denver.....	79	14.7	13.8	7	10	0
Des Moines.....	23	8.0	9.3	0	3	0
Detroit.....	274	11.5	9.4	45	45	77
Duluth.....	24	11.3	7.7	2	5	43
El Paso.....	25	12.4	13.0	4	6	
Erie.....	28			7	2	136
Fall River.....	26	11.2	13.4	5	6	73
Flint.....	19	7.6	4.6	5	4	79
Fort Worth.....	30	10.3	8.1	6	1	
White.....	27			5		
Colored.....	3	( <sup>3</sup> )		1		
Grand Rapids.....	28	9.5	14.4	5	2	79
Houston.....	66	20.9	16.9	11	12	
White.....	41			5		
Colored.....	25	( <sup>3</sup> )		6		
Indianapolis.....	107	15.5	14.0	7	5	50
White.....	92			6		49
Colored.....	15	( <sup>3</sup> )		1		55
Kansas City, Kans.....	26	11.0	14.6	4	1	79
White.....	20			3		67
Colored.....	6	( <sup>3</sup> )		1		184
Kansas City, Mo.....	53	12.1	13.5	7	13	
Los Angeles.....	227			22	18	60
Louisville.....	79	15.9	12.3	6	4	50
White.....	64			5		48
Colored.....	15	( <sup>3</sup> )		1		68
Lowell.....	40	17.9	13.1	7	4	121
Lynn.....	27	13.4	12.1	5	1	126
Memphis.....	71	21.2	28.1	8	7	
White.....	32			5		
Colored.....	39	( <sup>3</sup> )		3		
Milwaukee.....	90	9.4	10.1	11	20	51
Minneapolis.....	116	14.2	12.4	11	10	59
Nashville.....	39	14.9	18.6	1	3	
White.....	20			1		
Colored.....	19	( <sup>3</sup> )		0		

<sup>1</sup> Annual rate per 1,000 population.

<sup>2</sup> Deaths under 1 year per 1,000 births—an annual rate based on deaths under 1 year for the week and estimated births for 1924. Cities left blank are not in the registration area for births.

<sup>3</sup> Data for 59 cities.

<sup>4</sup> Deaths for week ended Friday, Dec. 18, 1925.

<sup>5</sup> In the cities for which deaths are shown by color, the colored population in 1920 constituted the following per cents of the total population: Atlanta 31, Baltimore 15, Birmingham 39, Dallas 15, Fort Worth 14, Houston 25, Kansas City, Kans., 14, Louisville 17, Memphis 38, Nashville 30, New Orleans 26, Norfolk 33, Richmond 32, and Washington, D. C., 25.

*Deaths from all causes in certain large cities of the United States during the week ended December 19, 1925, infant mortality, annual death rate, and comparison with corresponding week of 1924. (From the Weekly Health Index, December 22, 1925, issued by the Bureau of the Census, Department of Commerce)—Continued*

City	Week ended Dec. 19, 1925		Annual death rate per 1,000 corresponding week, 1924	Deaths under 1 year		Infant mortality rate week ended Dec. 19, 1925
	Total deaths	Death rate		Week ended Dec. 19, 1925	Corresponding week, 1924	
New Bedford.....	25	9.6	9.4	2	5	33
New Haven.....	38	11.1	12.7	3	4	39
New Orleans.....	155	19.5	18.0	12	13	-----
White.....	94			7		-----
Colored.....	61	( <sup>5</sup> )		5		-----
New York.....	1,390	11.9	12.8	142	169	57
Bronx Borough.....	180	10.4	9.8	16	17	55
Brooklyn Borough.....	459	10.7	12.3	47	65	43
Manhattan Borough.....	599	13.8	14.5	62	68	65
Queens Borough.....	108	9.8	12.8	14	16	65
Richmond Borough.....	44	17.1	14.0	3	3	54
Newark, N. J.....	114	13.1	11.6	11	16	50
Norfolk.....	39			4	5	74
White.....	20			3		83
Colored.....	19	( <sup>5</sup> )		1		49
Oakland.....	54	11.1	13.3	5	10	57
Oklahoma City.....	26			4	3	-----
Omaha.....	64	15.8	10.0	9	3	92
Paterson.....	31	11.4	18.7	2	3	34
Philadelphia.....	553	14.6	14.2	55	71	60
Pittsburgh.....	162	13.4	12.4	18	14	60
Portland, Oreg.....	61	11.3	10.9	2	2	20
Providence.....	72	15.3	16.7	2	8	16
Richmond.....	53	14.6	16.2	3	8	36
White.....	28			0		0
Colored.....	25	( <sup>5</sup> )		3		108
Rochester.....	84	13.2	11.9	6	11	49
St. Louis.....	229	14.5	12.5	21	12	-----
St. Paul.....	57	12.1	11.3	4	8	34
Salt Lake City.....	29	11.5	11.8	3	4	45
San Antonio.....	56	14.7	17.4	10	16	-----
San Diego.....	42	20.7	18.4	4	1	94
San Francisco.....	128	12.0	14.7	8	8	46
Schenectady.....	15	7.7	8.3	4	2	112
Seattle.....	78			4	4	39
Somerville.....	29	14.8	7.3	3	2	79
Spokane.....	31	14.8	12.5	3	3	67
Springfield, Mass.....	28	9.6	10.2	3	5	44
Syracuse.....	46	12.5	10.5	7	2	88
Tacoma.....	20	10.0	11.6	0	3	0
Toledo.....	55	10.0	10.2	7	7	63
Trenton.....	45	17.8	18.9	8	10	131
Washington, D. C.....	124	13.0	14.3	16	14	90
White.....	70			9		73
Colored.....	54	( <sup>5</sup> )		7		128
Waterbury.....	22			4	4	86
Wilmington, Del.....	31	13.2	8.7	2	2	45
Worcester.....	42	11.0	9.6	3	0	34
Yonkers.....	18	8.4	8.6	0	4	0
Youngstown.....	34	11.1	13.8	4	5	49

<sup>4</sup> Deaths for week ended Friday, Dec. 18, 1925.

<sup>5</sup> In the cities for which deaths are shown by color, the colored population in 1920 constituted the following per cents of the total population: Atlanta 31, Baltimore 15, Birmingham 39, Dallas 15, Fort Worth 14, Houston 25, Kansas City, Kans., 14, Louisville 17, Memphis 33, Nashville 30, New Orleans 26, Norfolk 38, Richmond 32, and Washington, D. C., 25.

# PREVALENCE OF DISEASE

*No health department, State or local, can effectively prevent or control disease without knowledge of when, where, and under what conditions cases are occurring*

## UNITED STATES

### CURRENT WEEKLY STATE REPORTS

These reports are preliminary and the figures are subject to change when later returns are received by the State health officers

#### Reports for Week Ended December 26, 1925

ALABAMA		CALIFORNIA	
	Cases		Cases
Chicken pox.....	19	Cerebrospinal meningitis:.....	
Dengue.....	1	North Sacramento.....	1
Diphtheria.....	24	Pittsburg.....	1
Influenza.....	74	Red Bluff.....	1
Malaria.....	6	Chicken pox.....	133
Measles.....	1	Diphtheria.....	65
Mumps.....	23	Influenza.....	74
Pellagra.....	2	Lethargic encephalitis:	
Pneumonia.....	70	Fresno County.....	1
Scarlet fever.....	10	Measles.....	10
Smallpox.....	5	Mumps.....	115
Tetanus.....	1	Poliomyelitis:	
Tuberculosis.....	23	Madera.....	1
Typhoid fever.....	7	San Fernando.....	1
Whooping cough.....	13	Scarlet fever.....	82
		Smallpox:	
ARIZONA		Los Angeles County.....	5
Chicken pox.....	1	Oakland.....	8
Mumps.....	1	Sacramento.....	5
Scarlet fever.....	7	Scattering.....	14
Tuberculosis.....	10	Typhoid fever.....	10
Typhoid fever.....	1	Whooping cough.....	33
ARKANSAS		COLORADO	
Cerebrospinal meningitis.....	1	Chicken pox.....	38
Chicken pox.....	8	Diphtheria.....	27
Diphtheria.....	7	Dysentery.....	1
Influenza.....	33	Measles.....	7
Malaria.....	11	Mumps.....	4
Mumps.....	1	Paratyphoid fever.....	2
Pellagra.....	6	Pneumonia.....	4
Scarlet fever.....	5	Scarlet fever.....	14
Smallpox.....	2	Smallpox.....	1
Trachoma.....	3	Tuberculosis.....	45
Tuberculosis.....	6	Typhoid fever.....	3
Typhoid fever.....	6	Whooping cough.....	21

## CONNECTICUT

	Cases
Cerebrospinal meningitis.....	2
Chicken pox.....	61
Diphtheria.....	24
German measles.....	7
Influenza.....	6
Measles.....	180
Mumps.....	4
Pneumonia (broncho).....	16
Pneumonia (lobar).....	45
Scarlet fever.....	56
Septic sore throat.....	2
Tuberculosis (pulmonary).....	12
Typhoid fever.....	4
Whooping cough.....	31

## DELAWARE

Anthrax.....	1
Chicken pox.....	1
Diphtheria.....	1
Measles.....	10
Pneumonia.....	7
Tuberculosis.....	4

## FLORIDA

Chicken pox.....	9
Dengue.....	1
Diphtheria.....	25
Influenza.....	19
Malaria.....	31
Measles.....	3
Mumps.....	3
Pneumonia.....	80
Scarlet fever.....	2
Smallpox.....	9
Tetanus.....	13
Tuberculosis.....	94
Typhoid fever.....	11
Whooping cough.....	2

## GEORGIA

Chicken pox.....	13
Diphtheria.....	15
Dysentery.....	5
German measles.....	1
Hookworm disease.....	1
Influenza.....	83
Malaria.....	5
Measles.....	2
Mumps.....	10
Pneumonia.....	61
Scarlet fever.....	6
Septic sore throat.....	7
Smallpox.....	2
Tuberculosis.....	2
Typhoid fever.....	2
Whooping cough.....	4

## ILLINOIS

Cerebrospinal meningitis—Jefferson County..	1
Diphtheria:	
Cook County.....	64
Scattering.....	21
Influenza.....	26
Lethargic encephalitis—Cook County.....	1
Measles.....	191
Pneumonia.....	214

## ILLINOIS—continued

Scarlet fever:	Cases
Cook County.....	121
Kane County.....	21
Livingston County.....	16
Madison County.....	10
Peoria County.....	12
Scattering.....	99
Smallpox:	
St. Clair County.....	10
Scattering.....	26
Tuberculosis.....	125
Typhoid fever:	
Franklin County.....	13
Scattering.....	35
Whooping cough.....	73

## INDIANA

Cerebrospinal meningitis.....	2
Chicken pox.....	49
Diphtheria.....	51
Influenza.....	34
Measles.....	74
Pneumonia.....	21
Scarlet fever.....	156
Smallpox.....	61
Tuberculosis.....	22
Typhoid fever.....	8
Whooping cough.....	43

## IOWA

Cerebrospinal meningitis.....	1
Chicken pox.....	37
Diphtheria.....	24
German measles.....	1
Measles.....	36
Mumps.....	3
Pneumonia.....	1
Poliomyelitis.....	2
Scarlet fever.....	51
Smallpox.....	13
Typhoid fever.....	7
Whooping cough.....	6

## KANSAS

Cerebrospinal meningitis:	
Abilene.....	1
Kansas City.....	1
Chicken pox.....	85
Diphtheria.....	22
Influenza.....	2
Measles.....	15
Mumps.....	2
Pneumonia.....	29
Poliomyelitis:	
Eudora.....	1
Hayes.....	1
Kansas City.....	1
Scarlet fever.....	43
Septic sore throat.....	1
Smallpox.....	5
Tuberculosis.....	48
Typhoid fever.....	7
Whooping cough.....	31

LOUISIANA		MINNESOTA	
	Cases		Cases
Diphtheria.....	11	Chicken pox.....	114
Influenza.....	11	Diphtheria.....	51
Malaria.....	7	Measles.....	6
Pneumonia.....	35	Pneumonia.....	6
Scarlet fever.....	8	Polioomyelitis.....	1
Smallpox.....	39	Scarlet fever.....	210
Tuberculosis.....	28	Smallpox.....	6
Typhoid fever.....	3	Tuberculosis.....	33
		Typhoid fever.....	1
		Whooping cough.....	6
MAINE		MISSISSIPPI	
Chicken pox.....	25	Diphtheria.....	8
Diphtheria.....	5	Scarlet fever.....	9
German measles.....	1	Smallpox.....	3
Influenza.....	5	Typhoid fever.....	7
Measles.....	3		
Mumps.....	20	MISSOURI	
Pneumonia.....	2	(Exclusive of Kansas City)	
Scarlet fever.....	33	Cerebrospinal meningitis.....	1
Septic sore throat.....	1	Chicken pox.....	51
Tuberculosis.....	3	Diphtheria.....	57
Typhoid fever.....	6	Epidemic sore throat.....	2
Vincent's angina.....	1	Leprosy.....	1
Whooping cough.....	12	Measles.....	2
		Mumps.....	24
MARYLAND <sup>1</sup>		Scarlet fever.....	147
Chicken pox.....	84	Smallpox.....	4
Diphtheria.....	22	Tetanus.....	1
German measles.....	2	Tuberculosis.....	15
Influenza.....	17	Typhoid fever.....	1
Malaria.....	1	Whooping cough.....	4
Measles.....	161		
Mumps.....	59	MONTANA	
Ophthalmia neonatorum.....	1	Cerebrospinal meningitis.....	1
Pneumonia (broncho).....	43	Chicken pox.....	18
Pneumonia (lobar).....	55	Diphtheria.....	5
Scarlet fever.....	50	Mumps.....	57
Tuberculosis.....	26	Polioomyelitis.....	1
Typhoid fever.....	13	Scarlet fever.....	13
Whooping cough.....	26	Smallpox.....	2
		Tuberculosis.....	2
MASSACHUSETTS		Typhoid fever.....	2
Cerebrospinal meningitis.....	2	Whooping cough.....	10
Chicken pox.....	138		
Conjunctivitis (suppurative).....	3	NEBRASKA	
Diphtheria.....	46	Cerebrospinal meningitis.....	1
German measles.....	14	Chicken pox.....	12
Influenza.....	12	Diphtheria.....	7
Measles.....	654	Influenza.....	1
Mumps.....	22	Mumps.....	1
Ophthalmia neonatorum.....	5	Pneumonia.....	6
Pneumonia (lobar).....	58	Scarlet fever.....	19
Scarlet fever.....	101	Smallpox.....	21
Tuberculosis (pulmonary).....	42	Whooping cough.....	2
Tuberculosis (other forms).....	7		
Typhoid fever.....	5	NEW JERSEY	
Whooping cough.....	154	Chicken pox.....	211
		Diphtheria.....	65
MICHIGAN		Dysentery.....	1
Diphtheria.....	75	Influenza.....	5
Measles.....	174	Measles.....	308
Pneumonia.....	141	Pneumonia.....	82
Scarlet fever.....	217	Scarlet fever.....	96
Smallpox.....	2	Typhoid fever.....	2
Tuberculosis.....	36	Whooping cough.....	21
Typhoid fever.....	30		
Whooping cough.....	111		

<sup>1</sup> Week ended Friday.

## NEW MEXICO

	Cases
Chicken pox.....	24
Diphtheria.....	1
Mumps.....	2
Pneumonia.....	5
Puerperal septicaemia.....	1
Scarlet fever.....	9
Tuberculosis.....	14
Typhoid fever.....	6
Whooping cough.....	25

## NEW YORK

(Exclusive of New York City)

Cerebrospinal meningitis.....	1
Diphtheria.....	51
Influenza.....	12
Measles.....	226
Pneumonia.....	176
Poliomyelitis.....	1
Scarlet fever.....	123
Typhoid fever.....	10
Whooping cough.....	132

## NORTH CAROLINA

Chicken pox.....	63
Diphtheria.....	28
Measles.....	24
Ophthalmia neonatorum.....	1
Scarlet fever.....	44
Smallpox.....	3
Typhoid fever.....	1
Whooping cough.....	24

## OKLAHOMA

(Exclusive of Tulsa and Oklahoma City)

Chicken pox.....	22
Diphtheria:	
Tillman.....	8
Scattering.....	22
Influenza.....	136
Measles.....	5
Pneumonia.....	72
Scarlet fever.....	29
Smallpox:	
Caddo.....	10
Scattering.....	2
Typhoid fever.....	30
Whooping cough.....	25

## OREGON

Cerebrospinal meningitis.....	1
Chicken pox.....	17
Diphtheria:	
Portland.....	18
Scattering.....	8
Influenza.....	2
Measles.....	3
Mumps.....	17
Pneumonia.....	13
Scarlet fever.....	19
Smallpox.....	9
Tuberculosis.....	8
Typhoid fever.....	4
Whooping cough.....	14

1 Deaths.

## PENNSYLVANIA

	Cases
Cerebrospinal meningitis:	
Blakely.....	1
Erie.....	1
Chicken pox.....	535
Diphtheria:	
Erie.....	10
Philadelphia.....	73
Pittsburgh.....	19
Scattering.....	113
German measles.....	17
Impetigo contagiosa.....	24
Leprosy.....	1
Lethargic encephalitis:	
Philadelphia.....	1
Measles.....	733
Mumps.....	102
Pneumonia.....	84
Poliomyelitis.....	1
Scabies.....	19
Scarlet fever:	
Philadelphia.....	66
Pittsburgh.....	57
Scranton.....	13
Scattering.....	201
Tuberculosis.....	128
Typhoid fever.....	23
Whooping cough.....	196

## RHODE ISLAND

Chicken pox.....	13
Diphtheria.....	3
Influenza.....	6
Measles:	
Providence.....	217
Scattering.....	19
Mumps.....	1
Ophthalmia neonatorum.....	1
Pneumonia.....	2
Scarlet fever.....	15
Tuberculosis.....	9
Whooping cough.....	6

## SOUTH DAKOTA

Chicken pox.....	17
Diphtheria.....	2
Mumps.....	48
Pneumonia.....	1
Scarlet fever.....	72
Smallpox.....	3
Typhoid fever.....	1

## TENNESSEE

Chicken pox.....	21
Diphtheria.....	7
Influenza.....	42
Malaria.....	2
Measles.....	26
Mumps.....	1
Pellagra.....	2
Pneumonia.....	45
Scarlet fever.....	21
Smallpox.....	6
Tuberculosis.....	7
Typhoid fever.....	10
Whooping cough.....	3

TEXAS		WASHINGTON—continued	
	Cases		Cases
Chicken pox.....	9	Smallpox:	
Diphtheria.....	20	Yakima County.....	21
Influenza.....	13	Scattering.....	19
Pneumonia.....	14	Tuberculosis.....	12
Scarlet fever.....	17	Whooping cough.....	21
Smallpox.....	9		
Tuberculosis.....	7	WEST VIRGINIA	
Typhoid fever.....	5	Diphtheria.....	4
Whooping cough.....	23	Scarlet fever.....	10
		Typhoid fever.....	1
UTAH			
Cerebrospinal meningitis:		WISCONSIN	
Salt Lake City.....	1	Milwaukee:	
Chicken pox.....	103	Chicken pox.....	120
Diphtheria.....	25	Diphtheria.....	28
Pneumonia.....	5	Measles.....	1
Scarlet fever.....	11	Mumps.....	4
Smallpox.....	1	Pneumonia.....	15
Typhoid fever.....	2	Scarlet fever.....	6
Whooping cough.....	23	Whooping cough.....	23
VERMONT		Scattering:	
Chicken pox.....	12	Chicken pox.....	206
Diphtheria.....	3	Diphtheria.....	36
Measles.....	4	German measles.....	12
Scarlet fever.....	7	Influenza.....	15
Whooping cough.....	46	Measles.....	128
WASHINGTON		Mumps.....	76
Cerebrospinal meningitis:		Pneumonia.....	33
Whitman County.....	1	Poliomylitis.....	1
Chicken pox.....	91	Scarlet fever.....	156
Diphtheria.....	9	Smallpox.....	7
German measles.....	9	Tuberculosis.....	23
Measles.....	13	Typhoid fever.....	6
Mumps.....	23	Whooping cough.....	128
Scarlet fever:			
Seattle.....	18	WYOMING	
Spokane.....	27	Chicken pox.....	17
Scattering.....	29	German measles.....	2
		Influenza.....	4
		Measles.....	1
		Mumps.....	2
		Scarlet fever.....	14
		Smallpox.....	5
		Tuberculosis.....	1

## Reports for Week Ended December 19, 1925

DISTRICT OF COLUMBIA		NORTH DAKOTA	
	Cases		Cases
Cerebrospinal meningitis.....	1	Chicken pox.....	16
Chicken pox.....	16	Diphtheria.....	7
Diphtheria.....	37	German measles.....	39
Influenza.....	3	Measles.....	2
Measles.....	7	Mumps.....	27
Pneumonia.....	26	Pneumonia.....	3
Scarlet fever.....	23	Poliomylitis.....	1
Tuberculosis.....	13	Scarlet fever.....	56
Typhoid fever.....	2	Smallpox.....	5
Whooping cough.....	12	Whooping cough.....	9



## SUMMARY OF MONTHLY REPORTS FROM STATES

The following summary of monthly State reports is published weekly and covers only those States from which reports are received during the current week.

State	Cerebro-spinal meningitis	Diphtheria	Influenza	Malaria	Measles	Pellagra	Polio-myelitis	Scarlet fever	Small-pox	Typhoid fever
<i>November, 1925</i>										
Alabama.....	3	219	262	137	6	36	5	105	156	134
Colorado.....		176	4		13		1	90	1	53
Delaware.....		34	5		1			15	0	5
Florida.....	1	141	25	60	3	12	2	24	14	57
Georgia.....	2	156	385	99	5	9	5	44	19	110
Illinois.....	3	584	55	1	632		12	1,280	79	206
Indiana.....	3	292	82				13	730		72
Iowa.....	2	180			16		10	211	39	125
Louisiana.....	1	154	91	59	6	34	9	59	34	164
Maryland.....	1	154	70	2	530	0	1	187	0	113
Minnesota.....	1	353	3		23		16	859	14	25
Mississippi.....	2	250	2,811	4,397	183	333	3	77	39	309
Missouri.....	1	388	52	0	19	0	4	555	10	145
Ohio.....	2	833	44	0	1,076		9	1,140	137	187
Oklahoma <sup>1</sup> .....	3	200	525	104	9	20	5	135	26	322
Oregon.....	4	182	30		21		2	218	88	17
Rhode Island.....	0	51	8	0	421	0	2	43	0	10
Virginia.....	2	500	1,102	74	267	12	6	396	17	139

<sup>1</sup> Reports not required by law.

<sup>2</sup> Exclusive of Oklahoma City and Tulsa.

## RECIPROCAL NOTIFICATIONS

*Notifications regarding communicable diseases sent during the month of November, 1925, to other State health departments by departments of health of certain States*

Referred by—	Scarlet fever	Tuberculosis	Typhoid fever
Illinois.....		11	4
Massachusetts.....			1
Minnesota.....	1	31	4
New York.....	1		4

## PLAGUE-ERADICATIVE MEASURES IN THE UNITED STATES

The following items were taken from the reports of plague-eradication measures from the cities named:

*Los Angeles, Calif.*

Week ended Dec. 12, 1925:

Number of rats trapped.....	2,249
Number of rats found to be plague infected.....	0
Number of squirrels examined.....	334
Number of squirrels found to be plague infected.....	0
Number of mice trapped.....	3,942
Number of mice found to be plague infected.....	0

Date of discovery of last plague-infected rodent, Nov. 6, 1925.

Date of last human case, Jan. 15, 1925.

## Oakland, Calif.

(Including other East Bay communities)

Week ended Dec. 12, 1925:

Number of rats trapped..... 637

Number of rats found to be plague infected..... 0

Totals:

Number of rats trapped Jan. 1 to Dec. 12, 1925..... 77, 866

Number of rats found to be plague infected..... 21

Number of squirrels examined May 1 to Aug. 1, 1925..... 7, 277

Number of squirrels found to be plague infected..... 0

Number of mice trapped Jan. 1 to Dec. 12, 1925..... 28, 834

Date of discovery of last plague-infected rat, Mar. 4, 1925.

Date of last human case, Sept. 10, 1919.

GENERAL CURRENT SUMMARY AND WEEKLY REPORTS FROM  
CITIES

*Diphtheria*.—For the week ended December 12, 1925, 36 States reported 1,618 cases of diphtheria. For the week ended December 13, 1924, the same States reported 2,037 cases of this disease. One hundred and two cities situated in all parts of the country and having an aggregate population of about 29,000,000, reported 909 cases of diphtheria for the week ended December 12, 1925. Last year for the corresponding week they reported 1,055 cases. The estimated expectancy for these cities was 1,392 cases. The estimated expectancy is based on the experience of the last nine years, excluding epidemics.

*Measles*.—Thirty-three States reported 4,329 cases of measles for the week ended December 12, 1925, and 1,665 cases of this disease for the week ended December 13, 1924. One hundred and two cities reported 2,212 cases of measles for the week this year, and 694 cases last year.

*Poliomyelitis*.—The health officers of 37 States reported 41 cases of poliomyelitis for the week ended December 12, 1925. The same States reported 58 cases for the week ended December 13, 1924.

*Scarlet fever*.—Scarlet fever was reported for the week as follows: Thirty-six States—this year, 3,165 cases; last year, 3,380 cases. One hundred and two cities—this year, 1,281 cases; last year, 1,712 cases; estimated expectancy, 1,007 cases.

*Smallpox*.—For the week ended December 12, 1925, 36 States reported 379 cases of smallpox. Last year for the corresponding week they reported 799 cases. One hundred and two cities reported smallpox for the week as follows: 1925, 119 cases; 1924, 236 cases; estimated expectancy, 53 cases. One death from smallpox was reported by these cities for the week this year—at Los Angeles, Calif.

*Typhoid fever*.—Four hundred and twenty-two cases of typhoid fever were reported for the week ended December 12, 1925, by 36 States. For the corresponding week of 1924, the same States re-

ported 571 cases of this disease. One hundred and two cities reported 112 cases of typhoid fever for the week this year and 237 cases for the corresponding week last year. The estimated expectancy for these cities was 96 cases.

*Influenza and pneumonia.*—Deaths from influenza and pneumonia were reported for the week by 95 cities, with a population of more than 28,000,000, as follows: 1925, 789 deaths; 1924, 945.

*City reports for week ended December 12, 1925*

The "estimated expectancy" given for diphtheria, poliomyelitis, scarlet fever, smallpox, and typhoid fever is the result of an attempt to ascertain from previous occurrence how many cases of the disease under consideration may be expected to occur during a certain week in the absence of epidemics. It is based on reports to the Public Health Service during the past nine years. It is in most instances the median number of cases reported in the corresponding week of the preceding years. When the reports include several epidemics or when for other reasons the median is unsatisfactory, the epidemic periods are excluded and the estimated expectancy is the mean number of cases reported for the week during nonepidemic years.

If reports have not been received for the full nine years, data are used for as many years as possible, but no year earlier than 1915 is included. In obtaining the estimated expectancy the figures are smoothed when necessary to avoid abrupt deviations from the usual trend. For some of the diseases given in the table the available data were not sufficient to make it practicable to compute the estimated expectancy.

Division, State, and city	Population July 1, 1923, estimated	Chick- en pox, cases re- ported	Diphtheria		Influenza		Meas- les, cases re- ported	Mumps, cases re- ported	Pneu- monia, deaths re- ported
			Cases, es- timated ex- pectancy	Cases re- ported	Cases re- ported	Deaths re- ported			
NEW ENGLAND									
Maine:									
Portland.....	73,129	1	2	0	0	0	1	11	2
New Hampshire:									
Concord.....	22,408	0	1	0	0	0	0	0	0
Vermont:									
Barnes.....	110,068	0	0	0	0	0	0	0	1
Burlington.....	23,613	0	1	0	0	0	0	0	1
Massachusetts:									
Boston.....	770,400	66	64	16	2	2	143	10	20
Fall River.....	120,912	2	5	3	0	0	134	0	4
Springfield.....	144,227	14	5	0	1	1	3	0	1
Worcester.....	191,927	12	5	2	0	0	239	2	11
Rhode Island:									
Pawtucket.....	68,789	16	2	5	0	0	4	0	3
Providence.....	242,378	0	15	5	1	0	188	0	6
Connecticut:									
Bridgeport.....	1143,555	2	11	5	1	1	68	0	1
Hartford.....	1138,086	12	9	5	1	0	26	0	3
New Haven.....	172,967	35	4	2	0	0	9	1	3
MIDDLE ATLANTIC									
New York:									
Buffalo.....	536,718	13	32	11	3	3	1	1	13
New York.....	5,927,625	256	207	144	27	12	742	17	139
Rochester.....	317,867	13	6	8	0	0	24	0	7
Syracuse.....	154,511	24	11	3	0	0	2	3	3
New Jersey:									
Camden.....	124,157	5	6	6	0	0	10	0	5
Newark.....	433,696	82	19	13	1	0	33	1	6
Trenton.....	127,390	10	6	1	5	2	2	0	4
Pennsylvania:									
Philadelphia.....	1,922,788	211	77	69	0	5	59	10	56
Pittsburgh.....	613,442	33	31	13	0	1	20	0	27
Reading.....	110,917	38	5	1	0	0	2	1	1

<sup>1</sup> Population Jan. 1, 1920.

## City reports for week ended December 12, 1925—Continued

Division, State, and city	Population July 1, 1923, estimated	Chick- en-pox, cases re- ported	Diphtheria		Influenza		Meas- les, cases re- ported	Mumps, cases re- ported	Pneu- monia, deaths re- ported
			Cases, esti- mated expectancy	Cases re- ported	Cases re- ported	Deaths re- ported			
EAST NORTH CENTRAL									
Ohio:									
Cincinnati.....	406,312	24	18	10	0	5	0	0	15
Cleveland.....	888,519	68	50	39	0	2	209	3	24
Columbus.....	261,082	9	10	2	0	0	2	0	6
Toledo.....	268,338	25	17	9	0	0	10	0	6
Indiana:									
Fort Wayne.....	98,573	3	5	3	0	0	1	0	0
Indianapolis.....	342,718	24	16	11	0	0	16	3	16
South Bend.....	76,709	8	1	2	0	0	1	0	2
Terre Haute.....	68,969	4	3	0	0	0	1	0	3
Illinois:									
Chicago.....	2,896,121	128	191	61	11	7	27	9	47
Peoria.....	79,673	14	2	0	0	0	0	0	2
Springfield.....	61,833	10	3	2	1	0	1	9	4
Michigan:									
Detroit.....	1,155,000	55	78	49	6	0	159	7	36
Flint.....	117,968	3	15	3	0	0	1	0	1
Grand Rapids.....	145,947	15	6	0	0	2	1	2	4
Wisconsin:									
Madison.....	42,510	22	1	0	0	0	1	2	0
Milwaukee.....	484,595	192	28	41	0	0	0	32	7
Racine.....	64,348	5	2	4	0	0	0	1	1
Superior.....	139,671	1	1	0	0	0	0	0	0
WEST NORTH CENTRAL									
Minnesota:									
Duluth.....	106,289	26	3	0	0	0	0	0	4
Minneapolis.....	409,125	75	27	21	0	0	0	0	7
St. Paul.....	241,891	19	21	25	0	0	0	5	7
Iowa:									
Davenport.....	61,263	16	2	0	0	-----	0	0	-----
Des Moines.....	140,423	0	7	4	0	-----	0	0	-----
Sioux City.....	79,662	8	3	2	0	-----	1	1	-----
Waterloo.....	39,667	1	1	0	0	-----	1	-----	-----
Missouri:									
Kansas City.....	351,519	48	14	5	3	2	2	0	6
St. Joseph.....	78,232	11	4	0	0	0	0	0	4
St. Louis.....	569,853	47	67	56	2	1	3	3	-----
North Dakota:									
Fargo.....	24,841	7	1	0	0	0	1	28	0
Grand Forks.....	14,547	3	0	0	0	-----	0	0	-----
South Dakota:									
Aberdeen.....	15,229	3	1	0	0	-----	0	40	-----
Sioux Falls.....	20,206	1	1	0	0	0	0	0	0
Nebraska:									
Lincoln.....	53,761	4	2	1	0	0	0	1	1
Omaha.....	204,352	26	6	5	0	0	2	1	8
Kansas:									
Topeka.....	52,555	26	3	1	0	0	1	1	1
Wichita.....	79,261	25	9	0	0	0	1	0	2
SOUTH ATLANTIC									
Delaware:									
Wilmington.....	117,728	4	4	7	0	0	0	0	7
Maryland:									
Baltimore.....	773,580	105	30	24	21	2	267	94	21
Cumberland.....	32,361	0	1	4	1	0	0	0	1
Frederick.....	11,301	1	0	2	0	0	0	0	0
District of Columbia:									
Washington.....	1,437,571	44	22	21	2	0	5	0	15
Virginia:									
Lynchburg.....	30,277	9	1	6	0	0	0	1	1
Norfolk.....	159,089	22	4	0	0	0	0	1	4
Richmond.....	181,044	15	12	14	0	0	2	23	4
Roanoke.....	55,502	2	4	4	0	0	0	0	0
West Virginia:									
Charleston.....	45,597	0	3	0	0	0	0	0	0
Huntington.....	57,918	0	2	1	0	0	1	0	5
Wheeling.....	56,208	2	3	0	0	0	1	0	2

Population Jan. 1, 1920.

## City reports for week ended December 12, 1925—Continued

Division, State, and city	Population July 1, 1923, estimated	Chicken pox, cases re-ported	Diphtheria		Influenza		Meas-les, cases re-ported	Mumps, cases re-ported	Pneu-monia, deaths re-ported
			Cases, es-timated ex-pectancy	Cases re-ported	Cases re-ported	Deaths re-ported			
SOUTH ATLANTIC—Cont									
North Carolina:									
Raleigh.....	29,171	0	2	1	0	0	0	0	6
Wilmington.....	35,719	1	1	2	0	0	0	0	2
Winston-Salem.....	56,230	0	2	0	0	0	6	2	4
South Carolina:									
Charleston.....	71,245	0	2	5	0	1	0	0	4
Columbia.....	39,688	3	1	0	0	0	0	3	0
Greenville.....	25,789	0	1	0	0	0	0	0	3
Georgia:									
Atlanta.....	222,963	0	6	2	38	0	0	0	12
Brunswick.....	15,937	4	0	0	0	0	0	0	0
Savannah.....	89,448	1	3	3	10	1	0	0	1
Florida:									
St Petersburg.....	24,403	0	1	0	0	0	0	0	3
Tampa.....	56,060	1	2	5	1	0	0	0	2
EAST SOUTH CENTRAL									
Kentucky:									
Covington.....	57,877	0	3	0	0	0	0	0	1
Louisville.....	257,671	4	11	5	1	0	3	0	6
Tennessee:									
Memphis.....	173,067	6	12	9	0	1	0	0	14
Nashville.....	121,128	1	4	2	0	2	0	3	5
Alabama:									
Birmingham.....	195,301	8	6	5	9	6	1	1	8
Mobile.....	63,858	0	2	0	2	0	0	0	1
Montgomery.....	45,383	7	1	2	1	0	0	10	0
WEST SOUTH CENTRAL									
Arkansas:									
Fort Smith.....	30,635	6	2	0	0	-----	0	0	-----
Little Rock.....	70,916	0	2	0	0	-----	0	1	-----
Louisiana:									
New Orleans.....	404,575	2	13	11	14	7	0	0	12
Shreveport.....	54,590	2	1	2	0	0	0	0	1
Oklahoma:									
Oklahoma City.....	101,150	1	3	0	10	0	0	0	1
Texas:									
Dallas.....	177,274	18	14	9	0	0	0	0	3
Galveston.....	46,877	0	1	0	0	0	0	0	0
Houston.....	154,970	0	4	15	0	1	0	0	14
San Antonio.....	184,727	0	4	3	0	1	1	0	12
MOUNTAIN									
Montana:									
Billings.....	16,927	12	0	0	0	0	0	4	0
Great Falls.....	27,787	8	1	0	0	0	1	82	0
Helena.....	12,037	0	0	0	0	0	0	0	1
Missoula.....	12,668	0	0	0	0	0	0	0	1
Idaho:									
Boise.....	22,806	1	0	0	0	0	0	0	0
Colorado:									
Denver.....	272,031	48	13	8	0	2	1	1	15
Pueblo.....	43,519	4	5	3	0	0	0	0	0
New Mexico:									
Albuquerque.....	16,648	3	1	0	0	0	0	0	0
Arizona:									
Phoenix.....	33,899	0	-----	0	0	0	0	0	1
Utah:									
Salt Lake City.....	126,241	85	3	7	0	0	2	11	2
Nevada:									
Reno.....	12,429	0	0	0	0	0	0	0	0
PACIFIC									
Washington:									
Seattle.....	1315,685	36	8	6	0	-----	3	19	-----
Spokane.....	104,573	54	5	4	0	-----	0	0	-----
Tacoma.....	101,731	5	3	2	0	0	1	0	2
Oregon:									
Portland.....	273,621	5	6	13	0	0	1	7	6
California:									
Los Angeles.....	666,853	29	37	42	11	1	6	18	11
Sacramento.....	69,950	3	3	2	0	0	0	2	4
San Francisco.....	539,638	48	24	13	4	0	9	7	4

\* Population Jan. 1, 1920.

## City reports for week ended December 12, 1925—Continued

Division, State, and city	Scarlet fever		Smallpox			Tuberculosis, deaths reported	Typhoid fever			Whooping cough, cases reported	Deaths, all causes
	Cases, estimated expectancy	Cases reported	Cases, estimated expectancy	Cases reported	Deaths reported		Cases, estimated expectancy	Cases reported	Deaths reported		
NEW ENGLAND											
Maine:											
Portland.....	2	0	0	0	0	1	0	4	0	3	22
New Hampshire:											
Concord.....	1	2	0	0	0	0	0	0	0	0	9
Vermont:											
Barre.....	1	1	0	0	0	0	0	0	0	0	2
Burlington.....	1	1	0	0	0	1	0	0	0	0	7
Massachusetts:											
Boston.....	31	42	0	0	0	5	2	0	0	37	223
Fall River.....	2	4	0	0	0	3	0	0	0	1	26
Springfield.....	8	1	0	0	0	1	1	1	1	0	30
Worcester.....	11	5	0	0	0	4	0	0	0	13	51
Rhode Island:											
Pawtucket.....	1	0	0	0	0	0	0	0	0	7	26
Providence.....	8	6	0	0	0	4	1	1	0	12	68
Connecticut:											
Bridgeport.....	6	9	0	0	0	0	0	1	0	0	34
Hartford.....	6	5	0	0	0	0	0	2	0	1	35
New Haven.....	7	3	0	0	0	2	1	0	1	7	47
MIDDLE ATLANTIC											
New York:											
Buffalo.....	22	18	1	0	0	9	1	6	0	17	141
New York.....	152	109	0	0	0	198	18	31	3	56	1,288
Rochester.....	13	19	0	0	0	7	1	1	1	11	74
Syracuse.....	12	3	0	0	0	2	1	0	0	56	35
New Jersey:											
Camden.....	2	21	0	0	0	4	1	0	0	0	45
Newark.....	16	10	0	0	0	12	2	2	0	9	123
Trenton.....	2	2	0	0	0	4	1	0	0	0	40
Pennsylvania:											
Philadelphia.....	57	89	0	0	0	38	4	8	1	30	510
Pittsburgh.....	31	63	0	0	0	9	1	0	0	12	182
Reading.....	1	7	0	0	0	2	0	1	0	12	56
EAST NORTH CENTRAL											
Ohio:											
Cincinnati.....	14	11	0	0	0	9	1	3	1	9	146
Cleveland.....	33	29	1	0	0	14	2	1	0	87	195
Columbus.....	10	20	0	13	0	4	0	0	0	3	80
Toledo.....	15	10	0	0	0	6	1	0	0	11	68
Indiana:											
Fort Wayne.....	2	0	0	0	0	1	1	3	0	0	12
Indianapolis.....	10	16	3	30	0	4	1	0	0	18	95
South Bend.....	3	8	0	3	0	0	0	0	0	4	12
Terre Haute.....	3	5	0	0	0	2	0	1	2	0	18
Illinois:											
Chicago.....	118	154	1	0	0	47	6	7	3	18	646
Peoria.....	6	6	0	0	0	0	0	0	0	1	11
Springfield.....	2	1	0	0	0	0	1	0	0	0	21
Michigan:											
Detroit.....	80	119	2	0	0	20	3	0	0	37	260
Flint.....	10	2	0	0	0	2	1	0	0	18	16
Grand Rapids.....	8	19	1	0	0	0	1	2	0	27	33
Wisconsin:											
Madison.....	1	4	0	0	0	0	0	0	0	5	4
Milwaukee.....	30	12	1	1	0	4	1	0	0	43	109
Racine.....	4	5	1	0	0	1	0	0	0	15	8
Superior.....	2	8	1	0	0	1	1	0	0	0	7
WEST NORTH CENTRAL											
Minnesota:											
Duluth.....	4	18	1	0	0	0	0	0	0	3	20
Minneapolis.....	39	59	5	1	0	4	1	2	1	3	87
St. Paul.....	17	45	4	1	0	8	1	1	0	7	70

\*Pulmonary tuberculosis only.

## City reports for week ended December 12, 1925—Continued

Division, State, and city	Scarlet fever		Smallpox			Tuber- culo- sis, deaths re- ported	Typhoid fever			Whoop- ing cough, cases re- ported	Deaths, all causes
	Cases, esti- mated expect- ancy	Cases re- ported	Cases, esti- mated expect- ancy	Cases re- ported	Deaths re- ported		Cases, esti- mated expect- ancy	Cases re- ported	Deaths re- ported		
WEST NORTH CENTRAL—contd.											
Iowa:											
Davenport.....	1	4	0	0			0	0		0	
Des Moines.....	8	6	1	0			0	0		0	
Sioux City.....	3	0	1	3			0	0		0	
Waterloo.....	3	3	0	0			0	0		2	
Missouri:											
Kansas City.....	11	17	0	0	0	9	1	1	0	8	93
St. Joseph.....	3	4	0	0	0	1	0	0	0	1	30
St. Louis.....	33	66	1	0	0	0	3	1	1	3	216
North Dakota:											
Fargo.....	2	4	0	0	0	0	0	0	0	7	4
Grand Forks....	1	0	0	0			0	0		4	
South Dakota:											
Aberdeen.....	1	1	0	0			0	0		0	
Sioux Falls.....	1	5	1	0	0	0	0	0	0	0	7
Nebraska:											
Lincoln.....	2	2	0	0	0	1	0	0	0	14	15
Omaha.....	5	13	2	4	0	1	1	0	0	2	52
Kansas:											
Topeka.....	2	2	0	0	0	0	0	1	0	1	15
Wichita.....	3	1	0	0	0	1	1	0	0	1	31
SOUTH ATLANTIC											
Delaware:											
Wilmington.....	3	6	0	0	0	1	1	3	0	2	36
Maryland:											
Baltimore.....	22	18	1	0	0	18	4	2	0	33	212
Cumberland.....	0	0	0	0	0	1	1	2	0	0	12
Frederick.....	1	0	0	0	0	0	1	0	0	0	1
Dist. of Columbia:											
Washington.....	20	19	6	0	0	14	4	0	1	27	145
Virginia:											
Lynchburg.....	1	5	0	0	0	0	0	0	0	1	6
Norfolk.....	2	4	0	0	0	4	0	0	0	1	
Richmond.....	6	14	0	0	0	4	1	3	0	0	43
Roanoke.....	1	3	0	0	0	0	1	0	0	0	19
West Virginia:											
Charleston.....	1	6	1	0	0	0	0	0	2	3	27
Huntington.....	2	0	0	0	0	1	1	0	0	0	13
Wheeling.....	2	2	0	0	0	0	1	0	0	0	16
North Carolina:											
Raleigh.....	1	0	0	0	0	0	0	0	0	0	19
Wilmington.....	0	0	0	0	0	1	0	0	0	0	10
Winston-Salem....	1	2	1	0	0	5	0	0	0	1	20
South Carolina:											
Charleston.....	1	0	0	0	0	0	1	0	0	0	28
Columbia.....	0	0	1	0	0	0	0	0	0	0	
Greenville.....	0	0	0	0	0	0	0	0	0	4	13
Georgia:											
Atlanta.....	5	0	1	0	0	4	1	1	0	1	69
Brunswick.....	0	0	0	0	0	0	0	0	0	0	3
Savannah.....	1	0	1	0	0	1	1	1	0	0	26
Florida:											
St. Petersburg....	1	0	0	0	0	3	0	0	0	0	23
Tampa.....	0	0	0	4	0	2	0	0	0	0	38
EAST SOUTH CENTRAL											
Kentucky:											
Covington.....	2	1	0	0	0	0	0	0	0	0	14
Louisville.....	4	5	0	0	0	7	1	0	0	2	67
Tennessee:											
Memphis.....	4	6	0	0	0	5	0	2	0	4	68
Nashville.....	3	2	0	0	0	4	0	3	1	0	50
Alabama:											
Birmingham....	4	3	0	1	0	6	2	0	0	2	69
Mobile.....	1	3	0	0	0	1	0	0	0	0	16
Montgomery.....	0	1	0	0	0	0	0	0	0	0	19

## City reports for week ended December 12, 1925—Continued

Division, State, and city	Scarlet fever		Smallpox			Tuber- culosis, deaths re- ported	Typhoid fever			Whoop- ing cough, cases re- ported	Deaths, all causes
	Cases, esti- mated expect- ancy	Cases re- ported	Cases, esti- mated expect- ancy	Cases re- ported	Deaths re- ported		Cases, esti- mated expect- ancy	Cases re- ported	Deaths re- ported		
WEST SOUTH CENTRAL											
Arkansas:											
Fort Smith.....	1	2	0	0	-----	-----	0	0	-----	0	-----
Little Rock.....	2	2	0	0	-----	-----	0	0	-----	0	-----
Louisiana:											
New Orleans.....	6	7	0	0	0	15	2	0	0	4	151
Shreveport.....	0	2	1	1	0	2	1	1	1	1	22
Oklahoma:											
Oklahoma City.....	2	3	0	0	0	4	1	0	0	0	25
Texas:											
Dallas.....	4	17	0	0	0	4	2	5	2	16	44
Galveston.....	0	0	0	0	0	0	1	0	0	0	9
Houston.....	2	0	0	1	0	2	0	0	1	0	56
San Antonio.....	1	2	0	0	0	12	0	1	0	0	72
MOUNTAIN											
Montana:											
Billings.....	1	3	0	1	0	0	0	0	0	0	1
Great Falls.....	1	4	1	8	0	0	0	0	0	7	7
Helena.....	0	0	0	0	0	1	0	0	0	0	7
Missoula.....	1	3	1	1	0	0	0	0	0	0	9
Idaho:											
Boise.....	1	0	0	1	0	0	0	0	0	0	1
Colorado:											
Denver.....	10	3	4	0	0	9	0	1	0	14	80
Pueblo.....	2	3	1	0	0	0	0	0	0	0	10
New Mexico:											
Albuquerque.....	0	5	0	0	0	4	1	0	0	0	11
Arizona:											
Phoenix.....	-----	0	-----	0	0	7	-----	0	0	0	16
Utah:											
Salt Lake City.....	4	1	3	0	0	1	0	1	0	10	13
Nevada:											
Reno.....	0	0	0	0	0	0	0	0	0	0	6
PACIFIC											
Washington:											
Seattle.....	6	9	1	2	-----	-----	1	3	-----	10	-----
Spokane.....	5	27	4	3	-----	-----	1	0	-----	2	-----
Tacoma.....	2	3	1	21	0	1	0	0	0	1	21
Oregon:											
Portland.....	7	14	6	9	0	0	1	0	1	0	-----
California:											
Los Angeles.....	20	12	2	8	1	26	3	1	1	2	225
Sacramento.....	2	1	0	11	0	3	1	0	0	0	25
San Francisco.....	12	15	1	0	0	10	2	1	0	4	176



## City reports for week ended December 12, 1925—Continued

Division, State, and city	Cerebrospinal meningitis		Lethargic encephalitis		Pellagra		Poliomyelitis (infantile paralysis)		
	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases, estimated expectancy	Cases	Deaths
NEW ENGLAND									
Maine:									
Portland.....	1	0	0	0	0	0	0	0	0
Massachusetts:									
Boston.....	2	1	0	0	0	0	1	3	0
Springfield.....	1	1	0	0	0	0	0	0	0
Rhode Island:									
Providence.....	0	0	1	1	0	0	0	0	0
MIDDLE ATLANTIC									
New York:									
New York <sup>1</sup> .....	3	1	4	1	0	0	3	1	0
New Jersey:									
Newark.....	1	0	0	0	0	0	0	1	0
Pennsylvania:									
Philadelphia.....	0	0	0	1	0	0	0	0	0
EAST NORTH CENTRAL									
Ohio:									
Cleveland.....	0	0	0	1	0	0	0	0	1
Indiana:									
Indianapolis.....	0	1	0	0	0	0	0	0	0
Illinois:									
Chicago.....	2	1	0	0	0	0	1	0	0
Springfield.....	1	1	0	0	0	0	0	0	0
Wisconsin:									
Milwaukee.....	2	2	0	0	0	0	1	0	0
WEST NORTH CENTRAL									
Minnesota:									
Minneapolis.....	1	1	0	0	0	0	0	0	0
St. Paul.....	1	0	0	0	0	0	0	0	0
Missouri:									
St. Louis.....	0	0	0	0	0	0	0	1	1
Nebraska:									
Lincoln.....	1	0	1	0	0	0	0	0	0
SOUTH ATLANTIC									
District of Columbia:									
Washington.....	0	0	1	1	1	1	0	1	0
North Carolina:									
Winston-Salem.....	0	0	0	0	1	1	0	0	0
South Carolina:									
Charleston.....	0	0	0	0	0	1	0	0	0
Florida:									
Tampa.....	0	0	0	0	1	0	0	0	0
EAST SOUTH CENTRAL									
Tennessee:									
Memphis.....	0	0	0	1	0	0	0	1	0
WEST SOUTH CENTRAL									
Louisiana:									
New Orleans.....	0	0	0	0	0	0	0	0	0
Texas:									
Houston.....	0	0	0	0	1	1	0	0	0
San Antonio.....	0	0	0	0	0	1	0	0	0
PACIFIC									
Washington:									
Spokane.....	1	0	0	0	0	0	0	0	0
Tacoma.....	0	1	0	0	0	0	0	0	0
Oregon:									
Portland.....	0	0	0	0	0	0	0	1	0
California:									
Los Angeles.....	4	2	0	0	0	0	0	0	0
San Francisco.....	0	0	0	0	0	0	1	1	0

<sup>1</sup> Typhus fever, 2 cases, New York City.

The following table gives the rates per 100,000 population for 103 cities for the 10-week period ended December 12, 1925. The population figures used in computing the rates were estimated as of July 1, 1923, as this is the latest date for which estimates are available. The 103 cities reporting cases had an estimated aggregate population of nearly 29,000,000, and the 96 cities reporting deaths had more than 28,000,000 population. The number of cities included in each group and the aggregate populations are shown in a separate table below:

*Summary of weekly reports from cities, October 4 to December 12, 1925—Annual rates per 100,000 population*<sup>1</sup>

## DIPHTHERIA CASE RATES

	Week ended—									
	Oct. 10	Oct. 17	Oct. 24	Oct. 31	Nov. 7	Nov. 14	Nov. 21	Nov. 28	Dec. 5	Dec. 12
103 cities .....	140	154	<sup>2</sup> 168	<sup>3</sup> 182	166	174	181	159	<sup>4</sup> 172	164
New England.....	90	124	<sup>5</sup> 97	137	97	127	144	104	124	107
Middle Atlantic.....	114	120	129	149	126	141	143	150	137	139
East North Central.....	164	174	186	195	187	194	199	162	172	166
West North Central.....	207	236	259	282	267	240	228	178	230	243
South Atlantic.....	191	224	<sup>6</sup> 268	228	211	252	269	221	221	205
East South Central.....	97	97	109	97	137	69	122	120	<sup>7</sup> 122	132
West South Central.....	83	93	102	264	109	213	176	181	278	186
Mountain.....	200	162	372	<sup>8</sup> 176	266	248	315	134	<sup>9</sup> 361	172
Pacific.....	107	110	142	157	148	145	186	165	128	200

## MEASLES CASE RATES

103 cities .....	55	70	<sup>2</sup> 93	<sup>3</sup> 105	154	174	229	212	<sup>4</sup> 357	441
New England.....	385	447	<sup>5</sup> 399	604	852	937	1,130	827	1,533	2,025
Middle Atlantic.....	47	65	87	110	159	171	256	239	330	453
East North Central.....	26	25	47	57	74	88	103	124	255	307
West North Central.....	6	10	10	12	15	10	15	31	10	25
South Atlantic.....	16	55	<sup>6</sup> 40	59	154	282	280	353	552	576
East South Central.....	11	6	40	17	17	17	51	34	<sup>7</sup> 43	23
West South Central.....	0	0	14	5	9	9	9	5	5	5
Mountain.....	38	10	29	<sup>8</sup> 20	38	47	29	10	<sup>9</sup> 19	38
Pacific.....	12	29	12	15	17	20	32	26	53	55

## SCARLET FEVER CASE RATES

103 cities .....	96	126	<sup>2</sup> 132	<sup>3</sup> 160	170	191	175	205	<sup>4</sup> 221	231
New England.....	109	122	<sup>5</sup> 130	201	271	246	209	214	224	194
Middle Atlantic.....	65	75	96	106	111	142	144	149	166	173
East North Central.....	117	151	142	194	167	189	196	220	273	302
West North Central.....	135	276	296	305	384	400	421	454	433	493
South Atlantic.....	98	137	<sup>6</sup> 134	193	185	172	123	144	127	162
East South Central.....	132	154	132	80	109	183	137	183	<sup>7</sup> 177	120
West South Central.....	65	56	42	42	102	121	93	139	111	148
Mountain.....	153	48	115	<sup>8</sup> 195	172	181	162	172	<sup>9</sup> 342	162
Pacific.....	107	142	133	148	102	206	197	249	226	194

<sup>1</sup> The figures given in this table are rates per 100,000 population, annual basis, and not the number of cases reported. Populations used are estimated as of July 1, 1923.

<sup>2</sup> Barre, Vt., and Winston-Salem, N. C., not included.

<sup>3</sup> Helena, Mont., not included.

<sup>4</sup> Covington, Ky., and Denver, Colo., not included.

<sup>5</sup> Barre, Vt., not included.

<sup>6</sup> Winston-Salem, N. C., not included.

<sup>7</sup> Covington, Ky., not included.

<sup>8</sup> Denver, Colo., not included.

Summary of weekly reports from cities, October 4 to December 12, 1925—Annual rates per 100,000 population—Continued

## SMALLPOX CASE RATES

	Week ended—									
	Oct. 10	Oct. 17	Oct. 24	Oct. 31	Nov. 7	Nov. 14	Nov. 21	Nov. 28	Dec. 5	Dec. 12
103 cities.....	5	8	<sup>2</sup> 7	<sup>3</sup> 10	10	8	17	16	<sup>4</sup> 13	21
New England.....	0	0	<sup>5</sup> 7	0	0	0	0	0	0	0
Middle Atlantic.....	0	0	0	0	0	0	0	0	0	0
East North Central.....	1	8	4	17	12	13	32	32	14	34
West North Central.....	10	0	4	27	12	4	17	10	19	19
South Atlantic.....	6	6	<sup>6</sup> 0	6	12	6	21	2	4	8
East South Central.....	17	46	6	6	29	34	11	11	<sup>7</sup> 12	6
West South Central.....	0	0	0	0	0	0	0	9	14	9
Mountain.....	10	29	10	<sup>3</sup> 10	19	19	19	10	<sup>5</sup> 0	105
Pacific.....	46	58	78	46	49	44	78	99	110	131

## TYPHOID FEVER CASE RATES

103 cities.....	37	36	<sup>2</sup> 33	<sup>3</sup> 26	28	12	17	14	<sup>4</sup> 20	20
New England.....	17	25	<sup>5</sup> 15	17	22	2	32	17	22	22
Middle Atlantic.....	31	28	25	21	12	8	20	14	26	25
East North Central.....	22	32	9	16	19	9	3	4	8	12
West North Central.....	33	21	33	19	31	17	15	8	10	12
South Atlantic.....	55	70	<sup>6</sup> 78	27	64	10	31	29	21	25
East South Central.....	177	132	160	109	183	46	34	23	<sup>7</sup> 61	29
West South Central.....	60	40	83	83	51	60	32	32	42	32
Mountain.....	124	48	67	<sup>8</sup> 88	38	10	19	19	<sup>9</sup> 0	19
Pacific.....	9	20	32	20	9	3	6	15	15	15

## INFLUENZA DEATH RATES

96 cities.....	3	6	<sup>2</sup> 8	<sup>3</sup> 11	13	12	8	9	<sup>4</sup> 12	13
New England.....	0	0	<sup>2</sup> 2	12	5	7	2	12	10	10
Middle Atlantic.....	3	5	8	10	14	14	6	8	10	12
East North Central.....	3	8	9	7	12	10	6	5	7	12
West North Central.....	4	7	<sup>2</sup> 7	11	7	13	2	2	7	7
South Atlantic.....	2	2	<sup>2</sup> 2	6	18	2	14	10	18	8
East South Central.....	0	17	6	29	40	29	46	29	<sup>7</sup> 49	51
West South Central.....	15	10	20	41	15	31	10	36	41	46
Mountain.....	10	0	38	<sup>3</sup> 10	10	0	19	10	19	19
Pacific.....	0	11	4	<sup>10</sup> 4	15	4	19	4	4	4

## PNEUMONIA DEATH RATES

96 cities.....	66	94	<sup>2</sup> 96	<sup>3</sup> 122	141	138	151	130	<sup>4</sup> 149	134
New England.....	60	97	<sup>5</sup> 87	112	139	137	144	161	186	137
Middle Atlantic.....	64	94	104	137	153	144	160	145	161	132
East North Central.....	65	94	83	119	125	137	146	100	140	121
West North Central.....	48	61	63	99	88	83	103	83	85	85
South Atlantic.....	76	129	<sup>6</sup> 124	134	207	162	156	144	170	185
East South Central.....	120	103	132	114	166	177	240	194	<sup>7</sup> 183	200
West South Central.....	66	56	117	138	163	122	163	158	163	219
Mountain.....	95	124	115	<sup>8</sup> 78	105	161	229	162	162	181
Pacific.....	57	83	79	<sup>10</sup> 53	95	114	91	102	102	79

<sup>2</sup> Barre, Vt., and Winston-Salem, N. C., not included.

<sup>3</sup> Helena, Mont., not included.

<sup>4</sup> Covington, Ky., and Denver, Colo., not included.

<sup>5</sup> Barre, Vt., not included.

<sup>6</sup> Winston-Salem, N. C., not included.

<sup>7</sup> Covington, Ky., not included.

<sup>8</sup> Denver, Colo., not included.

<sup>9</sup> Helena, Mont., and Tacoma, Wash., not included.

<sup>10</sup> Tacoma, Wash., not included.

*Number of cities included in summary of weekly reports and aggregate population of cities in each group, estimated as of July 1, 1923*

Group of cities	Number of cities reporting cases	Number of cities reporting deaths	Aggregate population of cities reporting cases	Aggregate population of cities reporting deaths
Total.....	103	96	23,977,311	23,321,626
New England.....	12	12	2,098,746	2,098,746
Middle Atlantic.....	10	10	10,304,114	10,304,114
East North Central.....	16	16	7,135,899	7,135,899
West North Central.....	14	11	2,515,330	2,381,454
South Atlantic.....	21	21	2,542,498	2,542,498
East South Atlantic.....	7	7	911,885	911,885
West South Central.....	8	6	1,124,564	1,023,013
Mountain.....	9	9	549,445	549,445
Pacific.....	6	4	1,797,830	1,377,572

# FOREIGN AND INSULAR

## THE FAR EAST

*Report for week ended November 28, 1925.*—The following report for the week ended November 28, 1925, was transmitted by the far eastern bureau of the health section of the League of Nations' Secretariat, located at Singapore, to the headquarters at Geneva:

Port	Plague					
	Cases	Deaths	Cases	Deaths	Cases	Deaths
Calcutta.....		0		42	5	4
Bombay.....		0		0	0	3
Madras.....		0		1	2	0
Rangoon.....		2		0	1	0
Karachi.....		0		0	0	0
Negapatam.....		0		0	1	0
Colombo.....	1	1	0	0	0	0
Singapore.....	2	2	0	0	0	0
Port Swettenham.....	0	0	0	0	0	0
Penang.....	0	0	0	0	0	0
Batavia.....	0	0	0	0	0	0
Soerabaya.....	0	0	0	0	2	2
Samarang.....	0	0	0	0	0	0
Belawan Deli.....	0	0	0	0	0	0
Padang (Sumatra).....	0	0	0	0	0	0
Sabang (Rhio).....	0	0	0	0	0	0
Macassar.....	0	0	0	0	0	0
Pontianek (Borneo).....	0	0	0	0	0	0
North Borneo.....	0	0	0	0	0	0
Awak.....	0	0	0	0	2	0
.....	0	0	1	1	0	0
.....	1	1	81	44	0	0
.....	0	0	0	0	0	0
.....	0	0	0	0	0	0
.....	0	0	0	0	0	7
.....	0	0	0	0	0	0
Yasuki.....	0	0	0	0	0	0
Kohama.....	0	0	0	0	0	0
Yamaguchi.....	0	0	0	0	0	0
Moji.....	0	0	0	0	0	0
Kobe.....	0	0	2	0	0	0
Osaka.....	0	0	0	0	0	0
Keelung.....	0	0	0	0	0	0
Fusan.....	0	0	0	0	0	0
Dairen.....	0	0	0	0	4	0
Adelaide.....	0	0	0	0	0	0
Brisbane.....	0	0	0	0	0	0
Fremantle.....	0	0	0	0	0	0
Melbourne.....	0	0	0	0	0	0
Sydney.....	0	0	0	0	0	0
Rockhampton.....	0	0	0	0	0	0
Townsville.....	0	0	0	0	0	0
Port Darwin.....	0	0	0	0	0	0
Broome.....	0	0	0	0	0	0
Port Moresby.....	0	0	0	0	0	0
Basra.....	0	0	0	0	6	6
Suez.....	0	0	0	0	0	0
Alexandria.....	0	0	0	0	0	0
Port Said.....	0	0	0	0	0	0
Mombasa (Kenya).....	0	0	0	0	0	0
Zanzibar.....	0	0	0	0	0	0
Massowah.....	0	0	0	0	0	0
Djibuti.....	0	0	0	0	0	0
Lourenco-Marques.....	0	0	0	0	0	0
Durban.....	0	0	0	0	0	0
East London.....	0	0	0	0	0	0
Port Elizabeth.....	0	0	0	0	0	0
Cape Town.....	0	0	0	0	0	0
Port Louis (Mauritius).....	0	0	0	0	0	0
Seychelles.....	0	0	0	0	0	0

## CANARY ISLANDS

*Infantile mortality—Las Palmas.*—Current vital statistics for the city of Las Palmas under date of November 20, 1925, indicate that 59 per cent of all deaths occurring in that city are of children not more than four years of age. The causes suggested were lack of child welfare service, ignorance on the part of mothers, and general insanitary local conditions. Population of Las Palmas, 66,461, census of 1920.

## FINLAND

*Communicable diseases—October, 1925.*—During the month of October, 1925, communicable diseases were notified in the Republic of Finland as follows: Diphtheria, 135 cases; dysentery, 1; lethargic encephalitis, 3; paratyphoid fever, 42; scarlet fever, 113; typhoid fever, 133; typhus fever, 1 case.

## GUADELOUPE (WEST INDIES)

*Influenza—Pointe à Pitre.*—Under date of November 16, 1925, influenza, with many fatalities, was reported present at Pointe à Pitre, Island of Guadeloupe, West Indies.

## LATVIA

*Communicable diseases—October, 1925.*—During the month of October, 1925, communicable diseases were reported in the Republic of Latvia as follows:

Disease	Cases	Disease	Cases
Cerebrospinal meningitis.....	1	Relapsing fever.....	
Diphtheria.....	67	Scarlet fever.....	184
Dysentery.....	11	Typhoid fever.....	96
Measles.....	110	Typhus fever.....	2
Mumps.....	11	Whooping cough.....	13

## SIAM

*Epidemic cholera, imported—Bangkok—October, 1925.*—Epidemic cholera was reported at Bangkok, Siam, during the period October 4 to 31, 1925. The disease was stated to have been imported by coolie passengers on a vessel which arrived at Bangkok with a number of cases of cholera on board. During the four weeks ended October 31, 60 cases of cholera, with 30 deaths, were reported. The greatest number of cases occurring during one week was 27, with 11 deaths.

*Bangkok declared infected.*—Under date of October 28, 1925, cholera was declared present in sporadic form at Bangkok. The port was made subject to quarantine restrictions.

## VIRGIN ISLANDS

*Communicable diseases—November, 1925.*—During the month of November, 1925, communicable diseases were notified in the Virgin Islands of the United States as follows:

Island and disease	Cases	Remarks
St. Thomas and St. John:		
Chancroid.....	2	1 imported.
Dysentery.....	1	
Dysentery.....	1	Trach. s. fed.
Gonorrhea.....	2	1 imported.
Syphilis.....	2	Do.
Unidentified.....	1	Neatol. Americanus.
St. Croix:		
Gonorrhea.....	2	
Leptosy.....	1	
Syphilis.....	3	Secondary.
Tuberculosis.....	1	Chronic pulmonary.

## CHOLERA, PLAGUE, SMALLPOX, AND TYPHUS FEVER

The reports contained in the following tables must not be considered as complete or final as regards either the lists of countries included or the figures for the particular countries for which reports are given.

Reports Received During Week Ended January 1, 1926<sup>1</sup>

## CHOLERA

Place	Date	Cases	Deaths	Remarks
India.....	Nov. 1-7.....	19	11	Oct. 18-24, 1925: Cases, 1,454; deaths, 859.
Re.....	Aug. 30-Sept. 19.....	121		
Re.....	May-June.....	7		
Re.....	Oct. 4-31.....	60	30	Infection stated to have been imported on vessel.
Re.....	Nov. 1-7.....	25	31	
Re.....	Oct. ....	9		Arrived at Bangkok, Siam; 9 cases in coolie passengers.

## PLAGUE

India.....				Oct. 18-24, 1925: Cases, 1,524; deaths, 977.
Karachi.....	Nov. 1-14.....	3	2	
Rangoon.....	Oct. 25-Nov. 7.....	4	1	
Java.....				Proph. cc.
Batavia.....	Oct. 24-Nov. 6.....	94	89	
Cheribon.....	Sept. 27-Oct. 17.....		166	
Pekalongan.....	do.....		42	
Soerabaya.....	Oct. 11-24.....	13	13	
Tegal.....	Sept. 27-Oct. 17.....	6	6	
Mauritius Island.....	Sept. 20-Oct. 17.....	5	5	
Russia.....	May-June.....	67		
Senegal.....	September, 1925.....	22	12	
Siam.....	Aug. 23-Sept. 5.....	23	20	

## SMALLPOX

Argentina.....				
Rosario.....	October, 1925.....		1	
Canada.....				
Ottawa.....	Dec. 6-12.....	2		
China.....				
Manchuria.....				
Dairen.....	Oct. 19-25.....	3	1	
Shanghai.....	Oct. 25-Nov. 11.....	4	3	

<sup>1</sup> From medical officers of the Public Health Service, American consuls, and other sources. For reports received from June 27 to Dec. 25, 1925, see Public Health Reports for Dec. 25, 1925. The tables of quarantinable diseases are terminated semiannually and new tables begun.

## CHOLERA, PLAGUE, SMALLPOX, AND TYPHUS FEVER—Continued

## Reports Received During Week Ended January 1, 1926—Continued

## SMALLPOX—Continued

Place	Date	Cases	Deaths	Remarks
France.....	-----	-----	-----	September, 1925: Cases, 25.
Greece.....	-----	-----	-----	Oct. 1-31, 1925: Cases, 10.
India.....	-----	-----	-----	Oct. 18-24, 1925: Cases, 1,138; deaths, 203.
Bombay.....	Nov. 8-14.....	5	3	
Kanara.....	Nov. 1-14.....	17	-----	
Rangoon.....	Oct. 23-31.....	1	-----	
Iraq.....	-----	-----	-----	Sept. 6-19, 1925: Cases, 41; deaths, 24.
Bagdad.....	Nov. 1-14.....	4	4	Aug. 2-Sept. 30, 1925: Cases, 20.
Italy.....	-----	-----	-----	
Java.....	-----	-----	-----	
Batavia.....	Oct. 24-30.....	1	-----	
Kruksaan.....	Oct. 11-17.....	11	-----	
Malang.....	Oct. 1-17.....	2	-----	
North Bantam.....	Oct. 4-17.....	4	-----	
Probolingo.....	Oct. 11-17.....	1	-----	
South Bantam.....	Oct. 1-17.....	1	-----	
Socrabaya.....	Oct. 11-24.....	158	18	
Tegal.....	Oct. 4-16.....	9	1	
Mexico.....	-----	-----	-----	July-August, 1925: Deaths, 605.
Peru.....	-----	-----	-----	
Arequipa.....	Oct. 1-31.....	-----	1	
Russia.....	-----	-----	-----	May-June, 1925: Cases, 1,338.
Slum.....	-----	-----	-----	July 12-Sept 5, 1925: Cases, 21; deaths, 6.
Switzerland.....	-----	-----	-----	June 23-Oct. 21, 1925: Cases, 36.
Tunisia.....	-----	-----	-----	
••• Tunis.....	Nov. 21-30.....	2	-----	

## TYPHUS FEVER

Algeria:				
Algiers.....	October, 1925.....	2	-----	
Argentina:				
Rosario.....	Oct. 1-31.....	1	-----	
Finland.....	-----	-----	-----	October, 1925: 0.
Latvia.....	October, 1925.....	2	-----	
Lithuania.....	-----	-----	-----	September, 1925: 1.
Mexico.....	-----	-----	-----	July-August, 1925: 1.
Guadalajara.....	Dec. 8-14.....	-----	1	
Mexico City.....	Nov. 22-28.....	12	-----	
Palestine:				
Nazareth.....	Nov. 3-9.....	1	-----	
Peru:				
Arequipa.....	October, 1925.....	-----	2	
Rumania.....	-----	-----	-----	July, 1925: Cases, 74; deaths, 9.
Russia.....	-----	-----	-----	May-June, 1925: Cases, 7,000.
Union of South Africa:				
Orange Free State.....	Nov. 1-7.....	-----	-----	Outbreaks.



TREASURY DEPARTMENT

# PUBLIC HEALTH REPORTS

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JANUARY 8 - 1926

## SPECIAL ARTICLES

Results of Smallpox Vaccinations at Lehigh University  
Reports of the Health Section of the League of Nations



WASHINGTON  
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1925

## UNITED STATES PUBLIC HEALTH SERVICE

HUGH S. CUMMING, *Surgeon General*

### DIVISION OF SANITARY REPORTS AND STATISTICS

Asst. Surg. Gen. B. J. LLOYD, *Chief of Division*

The PUBLIC HEALTH REPORTS are issued weekly by the United States Public Health Service through its Division of Sanitary Reports and Statistics, pursuant to acts of Congress approved February 15, 1893, and August 14, 1912.

They contain: (1) Current information of the prevalence and geographic distribution of preventable diseases in the United States in so far as data are obtainable, and of cholera, plague, smallpox, typhus fever, yellow fever, and other communicable diseases throughout the world. (2) Articles relating to the cause, prevention, or control of disease. (3) Other pertinent information regarding sanitation and the conservation of the public health.

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# PUBLIC HEALTH REPORTS

VOL. 41

JANUARY 8, 1926

No. 2

## SMALLPOX VACCINATION AS CARRIED OUT AT LEHIGH UNIVERSITY

By STANLEY THOMAS, Associate Professor of Bacteriology, Lehigh University

Since the introduction of smallpox vaccination by Edward Jenner in 1796 the scientific world has universally recognized this procedure as a specific prophylactic measure. For many years the bad results connected with vaccination were a constant source of worry to sanitarians.

With advanced methods of preparation of the virus, and the rigid control which the Government through the Public Health Service maintains in its manufacture, these bad results have been largely eliminated. The realization on the part of the medical profession that vaccination is a surgical operation which needs aseptic control both during and after the inoculation has also been a factor in the elimination of postvaccination infections, or infections caused by the invasion of the wound by bacteria which were not contained in the virus itself.

That there are objections by the public to vaccination to-day may be attributed, to a large extent, to an apparently logical though selfish point of view. This may be summarized somewhat in the question, "Why should I undergo the inconvenience of vaccination when there is no smallpox around?"

The results of laxity in vaccination have been too apparent. For seven years Manila, with a population of a quarter of a million, had not one death from smallpox. During 1918, when preventative measures became somewhat lax, more than 700 deaths were caused by this disease. To the sanitarian who remembers cases like this, the objections lose much of their force.

The fact remains, however, that the average individual dreads vaccination, and, as he heretofore has not been entitled to a certificate unless he had a "take," similar to that following a first vaccination, he would not willingly undergo the operation.

If, therefore, we could take into account the reasons why a person did not react with a typical Jennerian vaccinia, and base our method of certification upon this knowledge, we would overcome to a large extent the last remaining objection to vaccination.

That a failure to produce typical vaccinia did not necessarily mean that the vaccine used was not of sufficient potency was recognized

by Jenner. The explanation for it, however, remained to Von Pirquet, who showed that an immediate local reaction following vaccination may indicate immunity on the part of the individual and a consequent resistance to the virus. In 1913 Force suggested the use of this immune reaction in reading the degree of immunity possessed by the individual vaccinated.

In the Public Health Reports of September 21, 1923, Dr. S. B. Grubbs, surgeon, United States Public Health Service, at the New York Quarantine Station, described a method of vaccination and certification which would "encourage vaccination, not only to produce immunity but also to measure it, if present, and then to give those who submit, certificates that mean something and that will insure the owners against delay from smallpox quarantine, regardless of exposure to disease."

The idea seemed so excellent to us that we thought of applying the method in vaccinating the student body at Lehigh this fall, with the idea of cooperating in making the procedure one of universal adoption.

The vaccinations were made under the authority of Dr. R. C. Bull, Director of the Lehigh University Student Health Service, and it was only through Doctor Bull's hearty cooperation that this systematic immunization was possible.

Exactly the same technique was followed in each case. The skin of the upper arm was cleansed by rubbing with a swab of cotton saturated with alcohol. This was allowed to dry. With his left hand the operator grasped, from below, the arm of the patient in the region of the insertion of the deltoid muscle. The skin was stretched and three short, parallel scratches were made about three-quarters of an inch apart. The scratches penetrated the epidermis but pains were taken not to draw blood. Care was taken not to include any scar tissue from previous vaccinations in the scratched area. The virus was expelled from the tube on the two outside scratches and rubbed in thoroughly. The middle scratch was not inoculated but served as a control. It received the same degree of trauma as the two inoculated scratches.

While each man was being vaccinated a card was made out giving the serial or case number, his name, class in the University, the date of last successful vaccination, the date of vaccination, operator, manufacturer, lot number, and expiration date of the vaccine used.

The man was then instructed to return for observation in 24 hours, in 48 hours, and each day thereafter until we were supplied with a definite record of what happened in each individual case.

Readings were made in each case as often as the men returned and the reactions noted on their cards.

These reactions fell in general into certain well-defined groups. Examples of these groups are given in Table No. 1. Where there is

nothing indicated on one day, it means that the man did not return for observation on that day.

TABLE No. 1.—*Examples of reactions*

	Case No. <sup>1</sup>	Reaction on days after vaccination <sup>2</sup>											
		1	2	3	4	5	6	7	8	9	10	11	12
1. Typical Jennerian vaccination.....	346	0	0	-----	-----	T	T	-----	T	T	-----	-----	T
2. Vaccinoids:													
(a) Early vesicular.....	410	0	V	V	V	-----	Sc	-----	-----	-----	-----	-----	-----
(b) Late vesicular.....	2	S	++	-----	-----	-----	-----	V	-----	Sc	-----	0	-----
(c) Early nonvesicular.....	286	++	++	-----	++++	-----	+++	-----	+	-----	0	-----	-----
(d) Late nonvesicular.....	74	0	S	-----	-----	+	++	+++	-----	-----	0	-----	-----
3. Immune reactions:													
(a) Questionable.....	263	S	-----	S	-----	S	-----	-----	-----	-----	0	-----	-----
(b) Very slight.....	201	0	+	-----	-----	0	-----	-----	-----	-----	-----	0	-----
(c) Slight.....	166	++	++	-----	-----	-----	+	-----	-----	-----	-----	-----	-----
(d) Moderate.....	187	++	+++	-----	+++	-----	++	-----	+	-----	-----	-----	-----
(e) Marked.....	190	+	++++	-----	-----	-----	++	-----	-----	-----	-----	0	-----
4. Irregular reactions <sup>3</sup> .....	1	S	S	-----	-----	0	-----	-----	-----	-----	V	-----	-----
	9	-----	-----	S	-----	-----	-----	-----	-----	-----	-----	-----	-----
	169	0	-----	-----	-----	-----	-----	S	P	-----	-----	P	-----
	351	0	0	-----	-----	++	-----	0	-----	-----	-----	-----	P
	445	+	-----	0	-----	P	-----	P	-----	-----	-----	-----	-----
	456	-----	+	+	-----	0	-----	-----	-----	-----	0	-----	-----
	475	++	P	P	++++	++++	-----	+++	++	-----	-----	-----	-----
	574	-----	-----	-----	-----	-----	-----	+++	-----	P	-----	P	-----

<sup>1</sup> Case No. 1, vesicular tenth day, scab fifteenth day.

9, papule dried without vesiculation eighteenth day.

169, papule dried without vesiculation sixteenth day.

351, papule dried without vesiculation.

445, papule small but very distinct. Dried without vesiculation fifteenth day.

475, papulation large discreet; no vesiculation.

<sup>2</sup> First day, 24 hours; second day, 48 hours, etc., after vaccination.

0=No visible reaction.

Questionable S=Slightly more swelling and redness in the vaccination scratch than in the control.

Very slight ++=slight but definite reaction.

Slight +++=definite reaction 1 mm. greater than control.

Moderate ++++=definite reaction, 2.5 mm. greater than control.

Marked ++++=well-marked reaction, 5 mm. greater than control.

P=papule but not vesicle.

V=Vesicle.

Sc=scab.

T=Typical Jennerian vaccinia.

<sup>3</sup> Dr. G. W. McCoy, director of the Hygienic Laboratory, U. S. Public Health Service, commented on these reactions as follows: "Of the irregular reactions, I should call No. 1 a weak, delayed vaccinia, and Nos. 9, 169, 351, 445, 475, and 574 weak reactions or failures, assignable to virus of insufficient potency."

As two lot numbers of vaccine were used, it was thought best in tabulating the results to indicate the relation of the reactions to each lot of vaccine. In Table No. 2 these results are summarized. This table, however, took into account all the men who reported for vaccination. Of these 619 men 2 had been vaccinated a day or two before coming to college; 75 others did not return for observation. Just what was the result in these 75 cases we can not say. It is thought best, therefore, to ignore these cases in calculating the percentage of results as shown in Table No. 3.

This procedure is open to criticism on the ground that it may raise the percentage of "takes"

was successfully vaccinated would return to the dispensary for dressing, but, on the other hand, the retention of these cases would certainly give too low percentage for vaccinoids and immune reactions.

TABLE No. 2.—*Relation of reaction to virus used*

	Lot No. X	Lot No. Y	Total
1. Typical Jennerian vaccinia.....	37	18	55
2. Vaccinoids:			
(a) Early vesicular <sup>1</sup> .....	20	32	52
(b) Late vesicular <sup>1</sup> .....	14	8	22
(c) Early nonvesicular <sup>1</sup> .....	40	20	60
(d) Late nonvesicular <sup>1</sup> .....	10	11	21
	84	71	155
3. Immune reactions:			
(a) Questionable.....	21	7	28
(b) Very slight.....	51	10	61
(c) Slight.....	59	32	91
(d) Moderate.....	52	18	70
(e) Marked.....	21	19	40
	204	86	290
4. Irregular.....	4	4	8
5. No reaction.....	30	4	34
6. Did not return for observation.....	57	18	75
7. Vaccinated a few days previously and not vaccinated at this time.....	2	2	4
8. Total.....	418	201	619

<sup>1</sup> As a great many of these reactions reached their height on the fifth day after vaccination, it is difficult to distinguish accurately between "early vesicular" and "late vesicular," and between "early nonvesicular," and "late nonvesicular" reactions.

TABLE No. 3.—*Proportion of observed reactions with different viruses*

[Same as Table No. 2, with the elimination of those that did not return for observation (75) and those that were vaccinated just prior to arrival (2)]

	Lot No. X		Lot No. Y		Total	
	Number	Per cent	Number	Per cent	Number	Per cent
1. Typical Jennerian vaccinia.....	37	10.30	18	9.84	55	10.15
2. Vaccinoids:						
(a) Early vesicular.....	20	5.57	32	17.43	52	9.60
(b) Late vesicular.....	14	3.91	8	4.45	22	4.05
(c) Early nonvesicular.....	40	11.14	20	10.95	60	11.07
(d) Late nonvesicular.....	10	2.78	11	6.00	21	3.88
	84	23.40	71	38.83	155	28.60
3. Immune reactions:						
(a) Questionable.....	21	5.85	7	3.83	28	5.16
(b) Very slight.....	51	14.20	10	5.46	61	11.25
(c) Slight.....	59	16.43	32	17.43	91	16.79
(d) Moderate.....	52	14.50	18	9.84	70	12.91
(e) Marked.....	21	5.85	19	10.39	40	7.38
	204	56.83	86	46.95	290	53.49
4. Irregular.....	4	1.12	4	2.19	8	1.48
5. No reaction.....	30	8.35	4	2.19	34	6.28
6. Total.....	359	100.00	183	100.00	542	100.00

This table brings out the fact that of the two lots of virus used, lot Y was of slightly higher potency. The percentage of "typical



vaccinias" was practically the same in both cases. However, lot X showed a lower percentage of vesicular vaccinoids than lot Y, with a similar percentage of nonvesicular vaccinoids. This lot also gave a greater proportion of the lesser degrees of immune reaction as compared with the marked immune reactions, and it also gave a higher percentage of cases where no reaction followed the vaccination. The expiration dates of both lots was about the same. Lot X had an expiration date seven weeks from the time of purchase and lot Y eight weeks.

Considering both lots of virus together, the following points should be noted: Only 10 per cent of all these vaccinations resulted in typical Jennerian vaccinias, with maximum diameter of areola between the eighth and the twelfth day. The nonvesicular vaccinoids were in about the same proportion as the vesicular vaccinoids. The vaccinias and vaccinoids together comprise less than 40 per cent of all the men vaccinated. The slight immune reactions greatly outnumbered the moderate and well-marked immune reactions. Over 1 per cent of the cases gave irregular reactions, and over 6 per cent showed no reaction. All of these facts would indicate a virus the potency of which was somewhat below that of the highest degree. On the other hand, 84 per cent of all those who had never before been successfully vaccinated "took," in spite of the fact that many of them had had "unsuccessful" vaccinations within recent years.

Table No. 4 is a summary of the relation of vaccination to the time elapsed since the last successful vaccination.

TABLE NO. 4.—*Relation of vaccination to time elapsed since last successful vaccination*

	Within 5 years, 1920-1924		5-10 years, 1915-1919		10-15 years, 1910-1914		15-20 years, 1905-1909	
	Number	Per cent	Number	Per cent	Number	Per cent	Number	Per cent
1. Typical Jennerian vaccinia.....	1	1.38	1	1.51	11	5.09	7	10.77
2. Vaccinoids:								
(a) Early vesicular.....	3	4.17	5	7.57	9	4.12	4	6.15
(b) Late vesicular.....	6	8.33	7	10.60	20	9.25	5	7.69
(c) Early nonvesicular.....	6	8.33	6	9.09	30	13.89	13	20.00
(d) Late nonvesicular.....	2	2.77	2	3.03	13	6.02	5	7.70
	17	23.60	20	30.29	72	33.28	27	41.54
3. Immune reactions:								
(a) Questionable.....	4	5.55	5	7.57	10	4.58	7	10.77
(b) Very slight.....	6	8.33	8	12.12	26	12.14	5	7.69
(c) Slight.....	12	16.67	14	21.25	51	23.61	4	6.15
(d) Moderate.....	15	20.85	7	10.60	21	9.72	9	13.85
(e) Marked.....	13	18.07	5	7.57	15	6.95	4	6.15
Total.....	50	69.47	39	59.11	123	57.00	29	44.61
4. Irregular.....	1	1.38			3	1.39		
5. No reaction.....	3	4.17	6	9.09	7	3.24	2	3.08
6. Total.....	72	100.00	66	100.00	216	100.00	65	100.00

TABLE NO. 4.—*Relation of vaccination to time elapsed since last successful vaccination—Continued*

	Over 20 years		Never		Total		Record incomplete
	Number	Per cent	Number	Per cent	Number	Per cent	
1. Typical Jennerian vaccinia.....	2	22.22	32	84.21	54	11.59	1
2. Vaccinoids:							
(a) Early vesicular.....	2	22.22	1	2.63	24	5.15	-----
(b) Late vesicular.....			1	2.63	39	8.37	11
(c) Early nonvesicular.....	3	33.34	-----	-----	58	12.45	1
(d) Late nonvesicular.....	-----	-----	-----	-----	22	4.72	-----
	5	55.56	2	5.26	143	30.69	-----
3. Immune reactions:							
(a) Questionable.....	1	11.11	-----	-----	27	5.79	1
(b) Very slight.....	-----	-----	-----	-----	45	9.66	16
(c) Slight.....	-----	-----	1	2.63	82	17.59	9
(d) Moderate.....	1	11.11	1	2.63	54	11.59	16
(e) Marked.....	-----	-----	-----	-----	37	7.94	3
Total.....	2	22.22	2	5.26	245	52.57	-----
4. Irregular.....	-----	-----	-----	-----	4	.86	4
5. No reaction.....	-----	-----	2	5.27	20	4.29	14
6. Total.....	9	100.00	38	100.00	466 76	100.00	76
					542		

It will be noted that there is a gradual increase in the proportion of vaccinias as the time elapsed since the last successful vaccination increases. In the same way there is an increase in the proportion of vaccinoids. There is a slight decrease in total immune reactions but a marked decrease in the moderate and well-marked immune reactions, with the increase of time elapsed since the last successful "take."

We spoke of taking a record of old vaccination scars. The results obtained in comparing reactions to scars of former "takes" is of little scientific importance but of some interest. One often hears of a "good" scar spoken of as a fair sign of immunity to smallpox. The character of an old vaccination scar is, of course, a matter of opinion on the part of the observer. In order that we would not be influenced by the knowledge of the age of the scar, the character or apparent degree of trauma was noted before the question of previous vaccination was asked. Table No. 5 shows just how valueless we found them as indicators.

TABLE NO. 5.—*Relation of reaction to degree or character of scars observed of former vaccinations*

	Good scar		Fair scar	
	Number	Per cent	Number	Per cent
Vaccinias.....	7	3.5%	6	3.11
Vaccinoids:				
(a) Early vesicular.....	25	12.80	21	10.83
(b) Late vesicular.....	9	4.59	6	3.11
(c) Early nonvesicular.....	21	10.70	18	9.33
(d) Late nonvesicular.....	10	5.10	10	5.17
Total.....	65	33.19	55	28.44
Immune reactions:				
(a) Questionable.....	9	4.59	10	5.17
(b) Very slight.....	21	10.70	28	14.51
(c) Slight.....	36	18.28	40	20.86
(d) Moderate.....	25	12.80	21	10.83
(e) Marked.....	21	10.70	15	7.76
	112	57.07	114	59.13
Irregular reactions.....	2	1.06	4	2.07
No reaction.....	10	5.10	14	7.25
Total.....	196	100.00	193	100.00

In publishing the results of our vaccinations at Lehigh, it is with the idea that the tables are far more important than our comments. We thoroughly believe that the education of the public in the desirability of vaccination is of greater value to the public health than law enactments. The method employed by the United States Public Health Service should be adopted universally, and with the adoption it is believed that this means of protection against smallpox will be welcomed rather than dreaded.

Under this plan practically everyone who is vaccinated is issued a certificate. This certificate will show when he was last vaccinated and the type of reaction, whether immune, vaccinoid, or vaccinia. Under ordinary circumstances that is sufficient. If an epidemic of smallpox should break out in a community, it would be the duty of the local health department to decide on its severity and whether or not any of these classes should be revaccinated.

This latter point can only be arrived at scientifically by the universal adoption of standard technique and certification and the compilation of sufficient data thus obtained.

## CURRENT WORLD PREVALENCE OF DISEASE

REVIEW OF THE MONTHLY EPIDEMIOLOGICAL REPORT ISSUED NOVEMBER 15, 1925  
BY THE HEALTH SECTION OF THE LEAGUE OF NATIONS' SECRETARIAT<sup>1</sup>

In the second half of October fewer cases of cholera were reported to the Singapore Bureau of the Health Section by ports in the Far East than for a number of weeks previous. At Manila the number of cases

<sup>1</sup>From the Statistical Office, United States Public Health Service.

declined rapidly after the sudden outbreak at the end of September with 73 cases in one week, and only 6 cases were reported in each of the last two weeks in October. At Shanghai only one case was reported in the last week of October, and during the three weeks preceding, no new cases had been reported. The extent of the outbreak in Shanghai, which began in August, is shown by the monthly report of Shanghai for August. This gives 39 cases among foreigners and 1,332 among the native population. The mortality among the cases admitted to the Municipal Isolation Hospital for Chinese was barely 15 per cent. Cholera is stated to have been present during August in Soochow, Wusieh, Nanking, and parts of Chekiang Province.

In Japan, according to the Epidemiological Report, the cholera infection spread to nine cities during September and October, but during the last week of October new cases were reported only in Kobe and Osaka.

The following table gives the number of cases of cholera reported by far eastern ports in recent weeks.

*Cholera cases reported in the principal ports of the Far East*

Port	Report for week ended—									
	August		September				October			
	22	29	5	12	19	26	3	10	17	24 31
Bombay <sup>1</sup> .....	0	0	0	0	0	0	0	0	0	0
Negapatam <sup>1</sup> .....	0	1	2	1	1	1	0	0	0	0
Madras <sup>1</sup> .....	3	0	2	0	2	1	0	0	0	0
Calcutta <sup>1</sup> .....	7	4	6	5	7	4	6	12	3	6
Rangoon <sup>1</sup> .....	1	0	0	0	0	1	0	1	0	0
Singapore.....	0	0	0	0	0	0	0	0	0	0
Bangkok.....	0	1	0	0	0	0	0	11	6	19
Saigon.....	0	0	0	0	0	0	0	0	1	0
Manila.....	0	0	2	0	5	73	64	27	16	6
Shanghai.....	42	20	21	12	16	6	3	0	0	1
Nagasaki.....	0	0	0	0	0	0	0	0	0	0
Yokohama.....	0	1	17	18	7	3	2	1	0	0
Kobe.....	0	0	0	6	2	0	4	1	1	3
Osaka.....	0	0	0	0	0	2	1	0	13	10
Colombo.....	0	0	0	0	0	0	0	2	0	0

<sup>1</sup>Deaths only.

The incidence of cholera in India continued to decline during August and the first half of September except in the Punjab and the United Provinces. In most of the Provinces of India the incidence of cholera was unusually low, and was markedly lower than at the corresponding season of 1924, as shown by the table below:

*Deaths from cholera in the Provinces of India*

Province	1925		1924	Province	1925		1924
	July 26- Aug. 22	Aug. 23- Sept. 19	Aug. 24- Sept. 20		July 26- Aug. 22	Aug. 23- Sept. 19	Aug. 24- Sept. 20
Northwest frontier Province.....	0	0	18	Assam.....	54	48	93
Kashmir.....	895	570	13	Central Provinces.....	1	4	3,454
Punjab.....	145	373	766	Madras Presidency.....	1,289	861	2,020
Delhi.....	11	3	5	Bombay Presidency.....	15	4	1,661
United Provinces.....	382	1,343	5,441	Burma.....	97	1	548
Bihar and Orissa.....	712	451	4,373	Other Indian States.....	35	23	1,063
Bengal Presidency.....	321	118	642	Total.....	3,937	2,799	20,097

*Plague.*—Fewer cases of plague were reported during September in Southeastern Russia than during August, except in the government of Stalingrad (Tsaritsyn) where 16 cases and 9 deaths were notified in the first four days of the month. Only two additional cases had been reported to September 28.

Sporadic cases of plague occurred in Egypt at the end of September and the beginning of October. One case of plague was reported in Algeria, one in Tunisia, and one in Syria during the first half of October. Egypt reported 3 cases of plague at Port Said in October, and 15 other cases, all but one in Beni-Suef, during the first three weeks of October.

Plague incidence in Madagascar reached a minimum of 23 cases in July and has gradually increased since that time; there were 54 cases reported in August, 72 in September, and 89 in the first half of October.

An outbreak of plague started in July in the Province of Ijebu-Ode in Nigeria, about 40 miles northeast of Lagos. To the middle of October, 407 cases and 301 deaths had been reported. No new case was reported at Lagos during the four weeks following September 12.

An increase in plague in southern India began during August and by the middle of September was especially marked in Bombay Presidency, the States of Mysore and Hyderabad, areas where the maximum incidence for the year occurs usually in October. In northern India the rise in incidence begins several months later.

*Plague deaths reported in the Provinces of India*

Province	1925		1924	Province	1925		1924
	July 19- Aug. 15	Aug. 23- Sept. 19	Aug. 24- Sept. 20		July 19- Aug. 15	Aug. 23- Sept. 19	Aug. 24- Sept. 20
Northwest frontier.....	0	0	17	Mysore.....	183	499	306
Punjab.....	48	159	10	Bombay Presidency.....	154	1,054	264
Delhi.....	0	0	0	Bengal Presidency.....	0	0	0
United Provinces.....	101	172	84	Assam.....	0	0	0
Bihar and Orissa.....	8	5	8	Burma.....	391	260	102
Central Provinces.....	33	407	388	Other Indian States.....	169	275	39
Madras Presidency.....	17	35	151	Total.....	1,134	3,543	2,053
Hyderabad State.....	30	657	684				

In Java the number of deaths from plague has been increasing since the middle of July, and has reached a level above that of the relatively high incidence reported in 1924. Deaths during the four weeks ending September 12 number 1,330, compared with 795 in the preceding four weeks and 860 in the corresponding period a year ago.

In Siam 41 cases of plague were reported in the four weeks ending September 5, compared with an average of 10 cases in the corresponding periods of the preceding three years.

*Yellow fever.*—More cases of yellow fever occurred on the West Coast of Africa in 1925 than in 1924. In southern Nigeria, 19 cases had been reported to date from 6 localities; in the Gold Coast 5 cases from 5 localities; in Liberia, 5 cases from a single locality; and in the Ivory Coast 1 case. During 1924, 8 cases were reported in the Gold Coast Colony, 9 in Dahomey, and 1 in Nigeria.

*Typhus.*—In the Union of South Africa the cases of typhus increased quite markedly during July and August, and in the latter month 242 cases were reported, more than twice the number notified during August, 1924.

No increase in typhus in the countries of Central and Eastern Europe was indicated in the reports available for September.

*Smallpox.*—Fatalities from smallpox apparently continue low in Europe, except in Spain. In the latter country 669 deaths from smallpox were reported in the first six months of the year. Elsewhere deaths from smallpox are rare, and only few or sporadic cases have been reported in recent months by most countries. The incidence of the disease in Russia is extremely low except in a few districts in the east.

In England and Wales there were 242 cases reported during the four weeks ended October 31, compared with 119 in the preceding four weeks. Cases are occurring at present mostly in northern England, particularly in Durham and Yorkshire. The reported case mortality of smallpox in England in 1925 has been 2 per 1,000.

In Mexico smallpox caused 3,572 deaths during the first eight months of 1925. In Jamaica to the end of August 1,368 cases of "alastrim" had been reported. Elsewhere in the West Indies smallpox has not been reported.

In India the incidence of smallpox has been declining markedly. The latest figures for the second week in September, the period of the usual seasonal minimum, are only slightly higher than at the corresponding season a year ago. With regard to the spring epidemic of smallpox in India, the report comments as follows:

The smallpox epidemic which overran most of India during the first half of the year was one of those outbreaks which occur as a rule every fifth year. The various districts of India were affected almost simultaneously, the highest incidence being in the lower Ganges Valley. A previous epidemic had occurred in Bombay Presidency in 1924.

*Dysentery*.—"The incidence of dysentery decreased earlier in the autumn than usual throughout Europe," says the report. "The small outbreaks in Norway, Sweden, Finland, the Netherlands, and France had practically died out in September." The central and eastern European countries, notably Germany, Poland, Czechoslovakia, Hungary, and the Kingdom of the Serbs, Croats, and Slovenes have reported an incidence very much lower than for several years previous.

*Enteric fever*.—No marked epidemics of enteric fever, such as occurred last year in southeastern Europe, have been reported. In most European countries a decline in the incidence of the disease set in during September or earlier and the prevalence has been less than in 1924 in England and Wales, Denmark, Bulgaria, and in the Kingdom of the Serbs, Croats, and Slovenes. In Germany and Italy, however, the cases number about the same as last year.

*Influenza*.—"An increase in mild influenza occurred during the first half of October in England and Wales," states the report, "and there was a simultaneous increase in the number of pneumonia cases reported. The outbreak was chiefly confined to the midland and northern counties of England. One hundred ninety-six deaths from influenza occurred during the four weeks ending October 17, as against 60 during the preceding four weeks. The ages affected were, as usual, the older groups. No further increase was observed during the last two weeks of October. It may be added that, while a higher prevalence of influenza during October and November is of common occurrence in England, serious epidemics are seldom observed before December or January, the pandemic of 1918 presenting a rare exception to this rule. No other influenza outbreaks have been reported so far from any countries of the Northern Hemisphere."

*Lethargic encephalitis*.—A slight increase in the number of cases of lethargic encephalitis occurred in England and Wales in October and in Sweden in September. Otherwise no changes were noted in the prevalence of this disease. The incidence for the first nine months of 1925 in a number of countries is given in the following table:

*Cases of lethargic encephalitis reported in various countries during the first nine months of 1925*

Country	Cases	Annual rate per 100,000 population	Country	Cases	Annual rate per 100,000 population
England and Wales.....	2,169	7.5	Czechoslovakia.....	159	1.5
Scotland (cities).....	173	9.6	Kingdom of the Serbs, Croats, and Slovenes.....	60	0.6
Norway (cities).....	14	2.3	Switzerland.....	69	2.3
Sweden.....	147	3.2	Italy.....	472	1.6
Finland.....	25	1.0	Malta.....	25	15.2
Denmark.....	125	4.9	United States (27 States).....	594	1.2
Netherlands.....	110	2.0	Australia.....	15	8.4
Belgium.....	51	0.9	New Zealand.....	17	1.6
Saar Territory.....	14	2.4			

*Acute poliomyelitis.*—In Sweden, where the incidence of poliomyelitis is the highest in Europe, 84 cases were reported in August, 138 in September, and 98 in October.

Only a few sporadic cases occurred during August and September in New Zealand, where one of the most severe poliomyelitis outbreaks ever recorded occurred during the first four months of the year.

*Scarlet fever.*—The seasonal rise of scarlet fever incidence in central Europe and in Great Britain has been greater than for the past two or three years at the corresponding season. Every few years the disease is more epidemic, and the last year of epidemic incidence in these countries was 1921. As October or November are, as a rule, the months of maximum incidence and the figures for September and October have remained lower thus far than during the autumn of 1921, it is regarded as very unlikely that the disease will continue to increase materially. The Scandinavian countries and those in southern Europe have not been affected by this periodic rise in incidence.

*Diphtheria.*—Only the usual seasonal increase in diphtheria is indicated in the reports of most European countries. In the United States the September incidence has been lower each year since 1921.

*Trachoma.*—Reports on the prevalence of trachoma in a number of countries have been summarized in the following table:

*Cases of trachoma reported by various countries in 1924 and the first three quarters of 1925*

Country	Total cases, 1924	1925		
		First quarter	Second quarter	Third quarter
Germany.....	1,784	487	757	619
Austria.....	424	175	235	186
Danwig.....	54	9	11	17
Ethiopia.....	531	142	123	68
France.....	58	8	29	11
Poland.....	2,944	1,016	1,051	2,885
Russia.....	483,290	135,433	106,019	.....
European R. S. F. S. R.	349,230	98,522	72,979	.....
Ukraine.....	49,592	17,463	17,039	3,6417
Transcaucasia.....	20,758	3,174	9,519	.....
Siberia.....	48,138	10,627	5,901	.....
Aut. Rep. of Kirghiz.....	12,045	3,033	.....	.....
Aut. Rep. of Turkestan.....	3,407	.....	.....	.....
Waterways, railways, prisons.....	.....	520	581	.....
Switzerland.....	13	2	12	1
Czechoslovakia.....	2,782	651	1,001	614
Saar Territory.....	3	1	0	0
Tunis.....	123	24	1	0
United States (24 States).....	1,807	261	221	293
Panama Canal Zone.....	4	0	0	0
New Zealand.....	20	10	45	1
Turkey.....	.....	207	38	.....

<sup>1</sup> Last two weeks missing.

<sup>2</sup> Last week missing.

<sup>3</sup> For a month only.

<sup>4</sup> For 10 weeks only.

<sup>5</sup> June and July missing.

*General mortality.*—Of considerable interest is the table given below of mortality by quarters in many of the larger cities of the world. Although the rates have not been adjusted for age differences in the



various populations, and the rates are therefore not strictly comparable to the last figure, a general indication of the course of mortality in the past three years is given.

A very favorable mortality in 1925 is shown by most North American and European cities, with a particularly marked improvement over the previous two years in the German and other central European cities. "Mortality is highest during the first quarter of each calendar year in all countries of the Temperate Zone, and this is a most important factor in determining the extent of mortality during the year," comments the report. The winter excess mortality is caused largely by influenza and other respiratory diseases, which modern sanitation can control much less effectively than it does the summer diseases which formerly exacted a high mortality.

*General quarterly mortality rates per 1,000 population in large cities, 1923-1925*

City	1923				1924				1925		
	First quarter	Second quarter	Third quarter	Fourth quarter	First quarter	Second quarter	Third quarter	Fourth quarter	First quarter	Second quarter	Third quarter
105 English cities.....	13.1	11.9	9.4	11.8	16.9	11.8	9.1	11.3	14.6	11.4	9.6
London.....	12.5	10.8	9.4	13.1	17.8	10.7	8.6	10.9	14.1	10.1	9.1
Liverpool.....	15.2	14.1	11.0	13.7	16.8	13.2	10.3	12.9	16.9	13.1	10.4
Glasgow.....	15.2	14.8	11.8	15.4	22.6	15.4	11.5	14.4	15.7	13.6	11.7
Dublin.....	15.9	14.5	12.7	14.6	22.4	14.2	12.0	14.4	18.0	15.0	13.6
Oslo.....	13.0	12.0	9.2	10.7	11.8	11.8	9.0	10.0	12.0	10.4	9.0
Stockholm.....	11.8	11.4	10.0	10.4	12.4	11.5	9.8	10.2	11.8	12.3	9.7
Copenhagen.....	12.6	11.8	10.2	10.8	13.7	14.3	9.8	10.9	12.4	12.9	9.9
Amsterdam.....	10.4	9.4	8.7	8.9	10.7	8.3	7.5	8.3	10.0	8.8	7.9
Antwerp.....	12.0	10.5	8.4	9.3	14.4	10.0	7.7	8.3	11.4	11.0	-----
Paris.....	16.0	14.0	11.9	13.9	17.8	14.0	11.1	13.9	17.3	14.7	11.8
46 German cities.....	15.2	12.7	11.4	11.4	13.5	11.5	9.7	10.9	11.1	11.4	10.2
Berlin.....	15.0	12.5	10.7	11.7	14.4	11.6	9.7	11.1	12.0	11.3	10.0
Hamburg.....	13.9	13.3	11.1	11.4	13.8	11.7	9.4	10.7	11.7	11.5	10.2
Munich.....	15.2	14.3	12.1	11.8	13.8	13.1	10.8	12.1	14.4	13.1	11.5
26 Swiss cities.....	13.8	13.3	11.2	12.3	16.2	13.8	11.0	12.6	14.7	14.0	11.7
Milan.....	13.4	11.5	13.5	12.6	14.8	12.1	11.3	12.5	15.1	13.2	-----
Vienna.....	16.6	14.9	11.7	12.3	14.6	14.3	11.8	13.4	14.7	-----	-----
Prague.....	15.0	13.8	12.3	13.0	16.3	15.1	12.4	11.5	12.9	12.2	-----
Budapest.....	20.4	22.1	18.6	17.7	22.6	21.8	17.0	15.8	17.7	17.2	14.2
Warsaw.....	15.6	13.3	13.5	14.4	17.8	14.4	13.9	13.5	14.6	14.7	14.6
Leningrad.....	-----	-----	-----	-----	17.8	19.0	21.1	16.8	17.8	19.9	-----
Alexandria.....	23.9	38.3	32.6	25.3	26.9	28.8	35.9	25.2	26.6	28.0	-----
Cairo.....	28.2	32.4	37.8	25.1	32.4	38.4	38.8	26.2	31.3	43.0	-----
Johannesburg.....	11.7	11.4	11.7	14.1	10.3	10.0	13.5	11.3	9.4	10.6	-----
Calcutta.....	29.9	25.7	29.7	30.2	31.4	28.2	23.7	30.2	41.5	29.7	-----
Bombay.....	33.8	32.6	29.6	28.4	35.2	28.4	29.8	31.3	29.3	25.1	23.9
Madras.....	44.7	34.3	32.7	40.0	43.2	37.1	39.2	46.0	46.8	45.5	-----
60 cities of the United States of America.....	16.0	13.1	10.7	12.0	14.1	13.1	10.7	12.2	13.3	12.6	10.8
Boston.....	19.8	15.0	10.1	13.6	14.3	14.9	11.5	13.8	17.6	15.1	11.9
New York.....	15.3	12.0	9.3	10.6	13.4	12.5	9.6	11.5	13.5	12.9	9.5
Philadelphia.....	13.6	13.9	10.4	12.6	14.9	13.5	10.8	12.6	15.3	13.1	10.5
Chicago.....	14.6	12.3	9.4	10.6	12.7	11.8	9.4	10.9	13.3	11.7	9.8
New Orleans.....	20.3	16.2	15.8	17.9	21.5	18.1	16.5	17.3	21.4	19.0	18.5
San Francisco.....	14.3	12.9	12.1	13.9	15.0	13.1	12.3	13.4	14.2	13.6	11.6
Rio de Janeiro.....	19.3	18.1	16.8	17.6	16.5	15.8	16.2	15.7	17.7	17.8	-----
Sydney (with suburbs).....	8.8	9.5	11.4	9.5	8.8	9.3	10.4	9.1	8.6	9.2	-----

## Examination for Entrance Into the Regular Corps of the Public Health Service

Examinations of candidates for entrance into the regular corps of the United States Public Health Service will be held at the following-named places on the dates specified:

Washington, D. C., February 8, 1926.

Chicago, Ill., February 8, 1926.

New Orleans, La., February 8, 1926.

San Francisco, Calif., February 8, 1926.

Candidates must be not less than 23 nor more than 32 years of age, and they must have been graduated in medicine at some reputable medical college and have had one year's hospital experience or two years' professional practice. They must pass satisfactorily oral, written, and clinical tests before a board of medical officers and undergo a physical examination.

Successful candidates will be recommended for appointment by the President, with the advice and consent of the Senate.

Requests for information or permission to take this examination should be addressed to the Surgeon General, United States Public Health Service, Washington, D. C.

## DEATHS DURING WEEK ENDED DECEMBER 26, 1925

*Summary of information received by telegraph from industrial insurance companies for week ended Dec. 26, 1925, and corresponding week of 1924. (From the Weekly Health Index, Dec. 29, 1925, issued by the Bureau of the Census, Department of Commerce)*

	Week ended Dec. 26, 1925	Corresponding week, 1924
Policies in force.....	62, 446, 446	57, 980, 043
Number of death claims.....	9, 652	8, 882
Death claims per 1,000 policies in force, annual rate..	8. 1	8. 0

*Deaths from all causes in certain large cities of the United States during the week ended December 26, 1925, infant mortality, annual death rate, and comparison with corresponding week of 1924. (From the Weekly Health Index, December 29, 1925, issued by the Bureau of the Census, Department of Commerce)*

City	Week ended Dec. 26, 1925		Annual death rate per 1,000 corresponding week 1924	Deaths under 1 year		Infant mortality rate week ended Dec. 26, 1925 <sup>2</sup>
	Total deaths	Death rate <sup>1</sup>		Week ended Dec. 26, 1925	Corresponding week 1924	
Total (65 cities).....	6,638	12.1	12.8	679	836	<sup>3</sup> 55
Akron.....	42			5	10	56
Albany.....	21	9.1	17.2	1	2	22
Atlanta.....	53			12	13	
White.....	30			8		
Colored.....	23	( <sup>4</sup> )		4		
Baltimore.....	204	13.4	13.6	22	27	66
White.....	151			16		59
Colored.....	53			6		96
Birmingham.....	50	12.7	13.0	6	6	
White.....	22			4		
Colored.....	28	( <sup>5</sup> )		2		
Boston.....	214	14.2	15.9	22	29	58
Bridgeport.....	41			3	4	48
Buffalo.....	119	11.2	14.1	16	19	65
Cambridge.....	28	13.0	9.8	0	2	0
Camden.....	37	15.0	9.9	8	3	127
Chicago.....	590	10.3	11.1	55	79	49
Cincinnati.....	126	16.1	19.2	12	17	71
Cleveland.....	161	9.0	9.9	20	29	50
Columbus.....	78	14.5	15.4	8	13	73
Dallas.....	49	10.8	12.5	6	5	
White.....	31			4		
Colored.....	9	( <sup>6</sup> )		2		
Denver.....	62	11.5	18.5	8	7	
Des Moines.....	22	7.7	9.7	2	1	24
Detroit.....	259	10.8	10.2	47	48	81
Duluth.....	21	9.0	9.1	2	2	43
El Paso.....	37	18.4	22.8	7	6	
Erie.....	21			1	3	19
Fall River.....	37	15.9	14.2	7	9	102
Flint.....	13	5.2	5.9	2	4	32
Fort Worth.....	39	13.3	11.3	5	4	
White.....	33			5		
Colored.....	6	( <sup>7</sup> )		0		
Grand Rapids.....	23	7.5	10.5	2	4	31
Houston.....	76	24.0	16.6	6	7	
White.....	55			5		
Colored.....	21	( <sup>8</sup> )		1		
Indianapolis.....	88	12.8	12.2	8	7	57
White.....	77			6		41
Colored.....	11	( <sup>9</sup> )		2		164
Jersey City.....	63	10.4	14.2	3	12	21
Kansas City, Kans.....	16	6.7	11.1	1	4	20
White.....	10			1		22
Colored.....	6	( <sup>10</sup> )		0		0
Kansas City, Mo.....	59	12.6	13.0	8	8	
Los Angeles.....	183			15	25	41
Louisville.....	96	19.3	9.3	8	6	67
White.....	67			4		38
Colored.....	29	( <sup>11</sup> )		4		273
Lowell.....	26	11.6	14.0	2	4	35
Lynn.....	23	11.5	15.6	5	4	126
Memphis.....	53	15.8	19.4	6	6	
White.....	28			3		
Colored.....	25	( <sup>12</sup> )		3		
Milwaukee.....	76	7.9	11.3	17	18	78
Minneapolis.....	79	9.7	12.1	12	8	64
Nashville.....	30	11.5	13.1	3	3	
White.....	16			2		
Colored.....	14	( <sup>13</sup> )		1		

<sup>1</sup> Annual rate per 1,000 population.

<sup>2</sup> Deaths under 1 year per 1,000 births—an annual rate based on deaths under 1 year for the week and estimated births for 1924. Cities left blank are not in the registration area for births.

<sup>3</sup> Data for 59 cities.

<sup>4</sup> Deaths for week ended Friday, Dec. 26, 1925.

<sup>5</sup> In the cities for which deaths are shown by color, the colored population in 1920 constituted the following percentage of the total population: Atlanta, 31; Baltimore, 15; Birmingham, 39; Dallas, 15; Fort Worth, 14; Houston, 25; Kansas City, Kans., 14; Louisville, 17; Memphis, 38; Nashville, 30; New Orleans, 26; Norfolk, 38; Richmond, 32; and Washington, D. C., 25.

Deaths from all causes in certain large cities of the United States during the week ended December 26, 1925, infant mortality, annual death rate, and comparison with corresponding week of 1924. (From the Weekly Health Index, December 29, 1925, issued by the Bureau of the Census, Department of Commerce)—Contd.

City	Week ended Dec. 26, 1925		Annual death rate per 1,000 corresponding week 1924	Deaths under 1 year		Infant mortality rate week ended Dec. 26, 1925
	Total deaths	Death rate		Week ended Dec. 26, 1925	Corresponding week 1924	
New Bedford	34	13.1	10.6	2	4	33
New Haven	43	12.5	11.0	4	7	52
New Orleans	152	19.1	22.7	13	20	—
White	92	( <sup>9</sup> )	—	8	—	—
Colored	60	( <sup>9</sup> )	—	5	—	—
New York	1,281	10.9	12.3	123	158	49
Bronx Borough	144	8.3	9.8	6	14	21
Brooklyn Borough	446	10.4	11.1	59	55	53
Manhattan Borough	545	12.6	15.0	51	76	61
Queens Borough	106	9.6	10.6	7	13	32
Richmond Borough	40	15.6	11.6	0	0	0
Newark, N. J.	82	9.4	10.5	13	9	59
Norfolk	25	—	—	4	2	74
White	18	—	—	3	—	88
Colored	9	( <sup>9</sup> )	—	1	—	49
Oklahoma City	19	—	—	0	2	—
Omaha	51	12.6	12.0	3	5	31
Paterson	33	12.1	13.7	0	8	0
Philadelphia	521	13.7	13.1	47	61	59
Pittsburgh	160	13.2	13.8	21	23	70
Portland, Oreg.	65	12.0	13.9	8	11	80
Providence	64	13.6	12.8	10	7	79
Richmond	60	16.8	15.6	4	4	48
White	37	—	—	4	—	72
Colored	23	( <sup>9</sup> )	—	0	—	0
Rochester	80	12.6	10.1	5	6	40
St. Louis	227	14.4	13.5	15	17	—
St. Paul	63	13.4	12.6	4	0	34
Salt Lake City <sup>4</sup>	31	12.3	8.5	0	1	0
San Antonio	47	12.4	10.9	9	11	—
San Diego	22	10.8	22.2	1	—	23
San Francisco	144	13.5	15.7	11	9	63
Schenectady	22	11.2	8.8	2	2	56
Seattle	62	—	—	3	3	29
Somerville	22	11.2	10.9	3	1	79
Spokane	27	12.9	12.5	1	3	22
Springfield, Mass.	39	13.3	9.5	6	4	59
Syracuse	50	13.6	10.3	3	6	38
Tacoma	23	11.5	10.6	2	2	47
Toledo	57	10.3	11.3	7	6	63
Trenton	31	12.2	13.7	4	5	66
Washington, D. C.	104	17.2	15.8	6	25	34
White	98	—	—	5	—	41
Colored	6	( <sup>9</sup> )	—	1	—	18
Waterbury	21	—	—	4	3	86
Wilmington, Del.	23	9.8	13.0	0	5	0
Worcester	66	17.3	12.3	6	5	69
Yonkers	28	13.1	9.0	5	2	109
Youngstown	30	9.8	7.4	4	5	49

<sup>4</sup>Deaths for week ended Friday, Dec. 26, 1925.

<sup>5</sup>In the cities for which deaths are shown by color, the colored population in 1920 constituted the following percentage of the total population: Atlanta, 32; Baltimore, 15; Birmingham, 38; Dallas, 15; Fort Worth, 14; Houston, 25; Kansas City, Kans., 14; Louisville, 17; Memphis, 38; Nashville, 30; New Orleans, 26; Norfolk, 38; Richmond, 32; and Washington, D. C., 25.

# PREVALENCE OF DISEASE

*No health department, State or local, can effectively prevent or control disease without knowledge of when, where, and under what conditions cases are occurring*

## UNITED STATES

### CURRENT WEEKLY STATE REPORTS

These reports are preliminary and the figures are subject to change when later returns are received by the State health officers

#### Reports for Week Ended January 2, 1926

ALABAMA		CALIFORNIA	
	Cases		Cases
Cerebrospinal meningitis.....	1	Cerebrospinal meningitis.....	1
Chicken pox.....	42	Los Angeles.....	1
Dengue.....	1	Oakland.....	1
Diphtheria.....	26	Chicken pox.....	206
Influenza.....	77	Diphtheria.....	76
Malaria.....	11	Influenza.....	120
Measles.....	17	Lethargic encephalitis.....	3
Mumps.....	17	Measles.....	28
Pellagra.....	7	Mumps.....	139
Pneumonia.....	174	Polomyelitis:	
Scarlet fever.....	11	Redlands.....	1
Smallpox.....	20	Roseville.....	1
Tetanus.....	4	Scarlet fever.....	126
Trachoma.....	3	Smallpox:	
Tuberculosis.....	21	Los Angeles.....	27
Typhoid fever.....	15	Oakland.....	9
Whooping cough.....	22	Scattering.....	12
		Typhoid fever.....	8
		Whooping cough.....	64
ARIZONA		COLORADO	
Diphtheria.....	3	Chicken pox.....	29
Mumps.....	1	Diphtheria.....	38
Scarlet fever.....	4	Impetigo contagiosa.....	1
Tuberculosis.....	18	Mumps.....	6
Typhoid fever.....	1	Pneumonia.....	8
		Polioimyelitis.....	1
		Scarlet fever.....	20
		Tuberculosis.....	61
		Typhoid fever.....	5
		Whooping cough.....	45
ARKANSAS		CONNECTICUT	
Chicken pox.....	5	Cerebrospinal meningitis.....	2
Diphtheria.....	10	Chicken pox.....	94
Hookworm disease.....	2	Diphtheria.....	40
Influenza.....	102	German measles.....	5
Malaria.....	23	Influenza.....	10
Measles.....	2	Lethargic encephalitis.....	1
Mumps.....	3	Measles.....	283
Paratyphoid fever.....	2		
Pellagra.....	5		
Scarlet fever.....	14		
Smallpox.....	4		
Trachoma.....	1		
Tuberculosis.....	8		
Typhoid fever.....	13		
Whooping cough.....	3		

CONNECTICUT—continued	Cases
Mumps.....	6
Paratyphoid fever.....	1
Pneumonia (broncho).....	36
Pneumonia (lobar).....	45
Scarlet fever.....	68
Septic sore throat.....	2
Trachoma.....	1
Tuberculosis (all forms).....	20
Whooping cough.....	58

## FLORIDA

Cerebrospinal meningitis.....	2
Chicken pox.....	30
Diphtheria.....	17
Influenza.....	12
Malaria.....	2
Measles.....	6
Mumps.....	12
Pneumonia.....	13
Scarlet fever.....	7
Smallpox.....	30
Tetanus.....	1
Tuberculosis.....	5
Typhoid fever.....	8

## GEORGIA

Chicken pox.....	18
Conjunctivitis (acute).....	1
Dengue.....	1
Diphtheria.....	12
Dysentery.....	2
Hookworm disease.....	1
Influenza.....	174
Malaria.....	9
Measles.....	10
Mumps.....	8
Pellagra.....	3
Pneumonia.....	102
Scarlet fever.....	16
Septic sore throat.....	5
Smallpox.....	9
Tuberculosis.....	10
Typhoid fever.....	10
Whooping cough.....	11

## ILLINOIS

Cerebrospinal meningitis:	
Cook County.....	2
De Kalb County.....	1
White County.....	1
Diphtheria:	
Cook County.....	68
Rock Island County.....	6
Tazewell County.....	5
Scattering.....	31
Influenza.....	15
Lethargic encephalitis.....	14
Measles.....	202
Pneumonia.....	325
Polioomyelitis:	
Cook County.....	1
Schuyler County.....	1
Scarlet fever.....	326
Smallpox:	
Birmingham County.....	5
Logan County.....	12

## ILLINOIS—continued

ILLINOIS—continued	Cases
Smallpox—Continued	
Peoria County.....	4
St. Clair County.....	17
Scattering.....	7
Tuberculosis.....	150
Typhoid fever:	
Cook County.....	5
Franklin County.....	5
Scattering.....	14
Whooping cough.....	84

## INDIANA

Chicken pox.....	40
Diphtheria.....	35
Influenza.....	64
Measles.....	194
Mumps.....	5
Pneumonia.....	31
Polioomyelitis.....	1
Scarlet fever.....	189
Smallpox.....	61
Tuberculosis.....	21
Typhoid fever.....	7
Whooping cough.....	13

## IOWA

Chicken pox.....	51
Diphtheria.....	30
Measles.....	105
Mumps.....	36
Pneumonia.....	5
Scarlet fever.....	94
Smallpox.....	33
Typhoid fever.....	2
Whooping cough.....	23

## KANSAS

Diphtheria.....	20
Dysentery.....	1
Influenza.....	16
Measles.....	34
Pellagra.....	1
Polioomyelitis—Eureka.....	1
Scarlet fever.....	64
Smallpox.....	1
Tuberculosis.....	23
Typhoid fever.....	14
Whooping cough.....	51

## LOUISIANA

Diphtheria.....	33
Influenza.....	35
Malaria.....	2
Pneumonia.....	34
Scarlet fever.....	14
Smallpox.....	13
Tuberculosis.....	15
Typhoid fever.....	11
Whooping cough.....	3

## MAINE

Chicken pox.....	21
Diphtheria.....	2
German measles.....	2
Measles.....	2
Mumps.....	10
Paratyphoid fever.....	1
Pneumonia.....	15
Polioomyelitis.....	1
Scarlet fever.....	34

## MAINE—continued

	Cases
Septic sore throat.....	1
Tuberculosis.....	6
Typhoid fever.....	4
Vincent's angina.....	1
Whooping cough.....	19

MARTLAND <sup>1</sup>

Chicken pox.....	105
Diphtheria.....	27
Dysentery.....	1
German measles.....	2
Influenza.....	32
Lethargic encephalitis.....	1
Measles.....	228
Mumps.....	66
Ophthalmia neonatorum.....	1
Paratyphoid fever.....	1
Pneumonia (broncho).....	47
Pneumonia (lobar).....	54
Scarlet fever.....	50
Septic sore throat.....	4
Tuberculosis.....	42
Typhoid fever.....	10
Whooping cough.....	32

## MASSACHUSETTS

Cerebrospinal meningitis.....	3
Chicken pox.....	224
Conjunctivitis (suppurative).....	13
Diphtheria.....	115
German measles.....	39
Influenza.....	7
Lethargic encephalitis.....	2
Measles.....	1,408
Mumps.....	57
Ophthalmia neonatorum.....	20
Pneumonia (lobar).....	218
Polomyelitis.....	4
Scarlet fever.....	314
Septic sore throat.....	2
Trachoma.....	2
Tuberculosis (pulmonary).....	99
Tuberculosis (other forms).....	36
Typhoid fever.....	10
Whooping cough.....	292

## MICHIGAN

Diphtheria.....	98
Measles.....	450
Pneumonia.....	181
Scarlet fever.....	296
Smallpox.....	41
Tuberculosis.....	278
Typhoid fever.....	12
Whooping cough.....	137

## MINNESOTA

Chicken pox.....	77
Diphtheria.....	56
Measles.....	12
Pneumonia.....	3
Polomyelitis.....	1
Scarlet fever.....	231
Smallpox.....	1
Tuberculosis.....	66
Typhoid fever.....	3
Whooping cough.....	7

<sup>1</sup> Week ended Friday.

## MISSISSIPPI

	Cases
Diphtheria.....	16
Scarlet fever.....	22
Smallpox.....	12
Typhoid fever.....	18

## MISSOURI

Chicken pox.....	43
Diphtheria.....	51
Influenza.....	8
Measles.....	10
Mumps.....	25
Ophthalmia neonatorum.....	1
Scarlet fever.....	183
Septic sore throat.....	2
Smallpox.....	2
Tuberculosis.....	4
Typhoid fever.....	3
Whooping cough.....	6

## MONTANA

Chicken pox.....	40
Diphtheria.....	9
Measles.....	3
Mumps.....	45
Scarlet fever.....	59
Smallpox.....	3
Trachoma.....	1
Tuberculosis.....	4
Typhoid fever.....	3
Whooping cough.....	14

## NEBRASKA

Chicken pox.....	14
Diphtheria.....	4
Measles.....	2
Mumps.....	5
Pneumonia.....	4
Scarlet fever.....	43
Smallpox.....	15
Tuberculosis.....	9
Typhoid fever.....	2
Whooping cough.....	10

## NEW JERSEY

Cerebrospinal meningitis.....	1
Chicken pox.....	261
Diphtheria.....	86
Dysentery.....	1
Influenza.....	9
Measles.....	580
Pneumonia.....	186
Scarlet fever.....	168
Typhoid fever.....	13
Whooping cough.....	51

## NEW MEXICO

Chicken pox.....	7
Diphtheria.....	1
German measles.....	1
Influenza.....	3
Mumps.....	6
Pneumonia.....	11
Polomyelitis.....	1
Rabies (in animals).....	1
Scarlet fever.....	10
Tuberculosis.....	16
Typhoid fever.....	3
Whooping cough.....	18

NEW YORK		PENNSYLVANIA—continued	
(Exclusive of New York City)		Cases	
Cerebrospinal meningitis.....	2	Pneumonia.....	28
Diphtheria.....	93	Poliomyelitis.....	1
Influenza.....	33	Rabies.....	1
Lethargic encephalitis.....	1	Scabies.....	1
Measles.....	1,013	Scarlet fever.....	290
Pneumonia.....	387	Trachoma.....	1
Poliomyelitis.....	8	Tuberculosis.....	52
Scarlet fever.....	215	Typhoid fever.....	20
Smallpox.....	2	Whooping cough.....	210
Typhoid fever.....	24		
Whooping cough.....	226		
NORTH CAROLINA		RHODE ISLAND	
Chicken pox.....	97	Cerebrospinal meningitis—Providence.....	1
Diphtheria.....	46	Chicken pox.....	5
German measles.....	1	Diphtheria.....	5
Measles.....	15	Influenza.....	14
Poliomyelitis.....	1	Measles.....	378
Scarlet fever.....	66	Mumps.....	1
Septic sore throat.....	2	Pneumonia.....	7
Smallpox.....	10	Scarlet fever.....	5
Typhoid fever.....	7	Typhoid fever—Providence.....	1
Whooping cough.....	41	Whooping cough.....	4
OKLAHOMA		SOUTH DAKOTA	
(Exclusive of Oklahoma City and Tulsa)		Chicken pox.....	10
Cerebrospinal meningitis:		Diphtheria.....	8
Pawnee County.....	1	Mumps.....	14
Stephens County.....	1	Pneumonia.....	8
Chicken pox.....	36	Poliomyelitis.....	1
Diphtheria.....	39	Scarlet fever.....	79
Influenza.....	175	Septic sore throat.....	2
Malaria.....	5	Whooping cough.....	1
Measles.....	8		
Mumps.....	3		
Pellagra.....	2		
Pneumonia.....	90		
Scarlet fever.....	38		
Smallpox:			
Caddo County.....	1		
Kingfisher County.....	2		
Typhoid fever.....	19		
Whooping cough.....	14		
OREGON		TENNESSEE	
Cerebrospinal meningitis.....	3	Chicken pox.....	31
Chicken pox.....	14	Diphtheria.....	11
Diphtheria.....	37	Influenza.....	49
Influenza.....	5	Malaria.....	2
Measles.....	7	Measles (incomplete reports).....	43
Mumps.....	24	Pellagra.....	2
Pneumonia.....	116	Pneumonia.....	78
Scarlet fever.....	22	Scarlet fever.....	27
Smallpox.....	19	Smallpox.....	9
Tuberculosis.....	6	Tuberculosis.....	31
Typhoid fever.....	3	Typhoid fever.....	13
Whooping cough.....	26	Whooping cough.....	1
PENNSYLVANIA		TEXAS	
Cerebrospinal meningitis.....	3	Chicken pox.....	23
Chicken pox.....	449	Dengue.....	2
Diphtheria.....	128	Diphtheria.....	55
German measles.....	8	Influenza.....	28
Impetigo contagiosa.....	6	Measles.....	2
Measles.....	1,363	Paratyphoid fever.....	1
Mumps.....	79	Pneumonia.....	3
		Scarlet fever.....	35
		Smallpox.....	7
		Trachoma.....	3
		Tuberculosis.....	14
		Typhoid fever.....	3
		Whooping cough.....	45
		UTAH	
		Cerebrospinal meningitis—American Fork.....	1
		Chicken pox.....	68
		Diphtheria.....	20
		Measles.....	2
		Mumps.....	18
		Pneumonia.....	5
		Scarlet fever.....	8
		Smallpox.....	11

1 Deaths.



UTAH—continued		WISCONSIN	
	Cases		Cases
Tuberculosis.....	2	Chicken pox.....	66
Typhoid fever.....	2	Diphtheria.....	13
Whooping cough.....	30	German measles.....	1
VERMONT		Influenza.....	5
Chicken pox.....	60	Measles.....	2
Diphtheria.....	1	Mumps.....	4
Measles.....	33	Pneumonia.....	15
Mumps.....	2	Scarlet fever.....	20
Pneumonia.....	8	Whooping cough.....	29
Scarlet fever.....	5	Scattering:	
Whooping cough.....	30	Cerebrospinal meningitis.....	1
WASHINGTON		Chicken pox.....	169
Cerebrospinal meningitis:		Diphtheria.....	41
Seattle.....	1	German measles.....	8
Spokane.....	2	Influenza.....	8
Tacoma.....	1	Measles.....	115
Chicken pox.....	76	Mumps.....	113
Diphtheria.....	12	Pneumonia.....	11
German measles.....	8	Polioomyelitis.....	1
Measles.....	17	Scarlet fever.....	137
Mumps.....	26	Smallpox.....	6
Scarlet fever.....	56	Tuberculosis.....	6
Smallpox:		Typhoid fever.....	1
Tacoma.....	14	Whooping cough.....	74
Scattering.....	27	WYOMING	
Trachoma.....	1	Chicken pox.....	7
Tuberculosis.....	21	Diphtheria.....	3
Typhoid fever.....	2	German measles.....	1
Whooping cough.....	19	Influenza.....	1
WEST VIRGINIA		Mumps.....	2
Diphtheria.....	6	Pneumonia.....	1
Scarlet fever.....	13	Scarlet fever.....	9
Typhoid fever—Hinton.....	1	Smallpox.....	1
		Whooping cough.....	4

### Reports for Week Ended December 26, 1925

DISTRICT OF COLUMBIA		NORTH DAKOTA—continued	
	Cases		Cases
Chicken pox.....	18	Smallpox.....	1
Diphtheria.....	8	Tuberculosis.....	1
Measles.....	7	Typhoid fever.....	1
Pellagra.....	1	Whooping cough.....	29
Pneumonia.....	37	SOUTH CAROLINA	
Scarlet fever.....	13	Dengue.....	3
Tuberculosis.....	17	Diphtheria.....	15
Typhoid fever.....	1	Influenza.....	330
Whooping cough.....	10	Malaria.....	52
NORTH DAKOTA		Measles.....	12
Chicken pox.....	9	Scarlet fever.....	8
Diphtheria.....	6	Smallpox.....	10
German measles.....	1	Tuberculosis.....	23
Measles.....	3	Typhoid fever.....	14
Mumps.....	5	Whooping cough.....	35
Scarlet fever.....	60		

## SUMMARY OF MONTHLY REPORTS FROM STATES

The following summary of monthly State reports is published weekly and covers only those States from which reports are received during the current week:

State	Cerebro-spinal meningitis	Diphtheria	Influenza	Malaria	Measles	Pelagra	Polio-myelitis	Scarlet fever	Small-pox	Typhoid fever
<i>June, 1925</i>										
Alabama	5	30	55	305	23	138	8	76	270	274
<i>November, 1925</i>										
California	6	547	61	5	53	7	50	567	194	64
Kansas	0	128	21	0	30	1	5	285	28	49
Maine	3	25	3	0	17	0	3	135	0	26
Montana	1	21	1		10			119	39	15
New York	11	17	109	8	3,007		50	1,066	1	185
Pennsylvania	5	1,118		2	2,123	1	5	1,856	2	206
South Dakota					4		17	367	9	12
Utah	2	156	6		16		1	95	22	14
Washington	6	133			22		11	340	220	26
Wyoming	3	6	2		2		2	61	17	12

## Number of Cases of Certain Communicable Diseases Reported for the Month of November, 1925, by State Health Officers

State	Chicken pox	Diphtheria	Measles	Mumps	Scarlet fever	Small-pox	Tuberculosis	Typhoid fever	Whooping cough
Alabama	48	219	6	91	105	156	194	134	52
Arizona	40	26	5	76	64	0	94	80	3
Arkansas	50	76	6	7	59	8	153	117	38
California	846	547	53	755	567	194	672	64	212
Colorado	205	176	13	27	90	1	178	58	80
Connecticut	257	173	261	33	185	0	112	17	235
Delaware	20	34	1		15	0	5	5	15
District of Columbia	88	117	13		101	0	94	11	38
Florida	13	141	3	17	24	14	128	57	34
Georgia	30	156	5	52	44	19	57	110	34
Idaho <sup>2</sup>									
Illinois	1,328	584	682	213	1,280	79	1,332	206	453
Indiana		292			750			72	
Iowa	207	180	16	46	211	39	31		49
Kansas	400	123	30	37	285	28	195	49	262
Kentucky <sup>3</sup>									
Louisiana	14	154	6		58	34	128	164	35
Maine	158	25	17	70	135	0	127	26	150
Maryland	473	154	530	209	187	0	238	118	176
Massachusetts	505	351	3,321	165	781	0	527	35	718
Michigan	776	474	411	53	875	18	309	84	564
Minnesota	571	353	23		859	14	188	25	123
Mississippi	280	250	183	410	77	30	278	300	634
Missouri	306	388	19	55	155	10	157	145	71
Montana	112	21	16	502	119	39	26	15	42
Nebraska <sup>1</sup>									
Nevada <sup>1</sup>									
New Hampshire <sup>1</sup>									
New Jersey	970	383	647		606	0	365	41	146
New Mexico <sup>2</sup>									
New York	2,232	970	3,007	413	1,066	1	1,376	185	913
North Carolina	275	546	80		321	44		38	178
North Dakota	55	19	10	173	236	10	5	9	79
Ohio	1,498	838	1,076	106	1,140	137	509	187	591
Oklahoma	45	200	9	15	135	25	57	322	82
Oregon	169	182	21	123	218	68	57	17	70
Pennsylvania	2,988	1,118	2,126	373	1,856	2	460	206	973
Rhode Island	53	51	421	4	43	0	30	10	64
South Carolina <sup>2</sup>									
South Dakota	78	17	4	111	367	9	10	12	26
Tennessee <sup>2</sup>									
Texas <sup>2</sup>									
Utah	674	156	16	17	95	22	114	14	100
Vermont	237	22	14	97	91	0	10	1	143
Virginia	358	500	267		396	17	139	139	274
Washington	518	133	22	157	349	220	155	26	141
West Virginia	182	161	90		225	2	41	108	56
Wisconsin	1,088	258	392	263	530	37	140	40	501
Wyoming	97	6	2	5	61	17		12	5

<sup>1</sup> Pulmonary tuberculosis only.<sup>2</sup> Report not received at time of going to press.<sup>3</sup> Reports received weekly.<sup>4</sup> Reports received annually.

## Case Rates per 1,000 Population (Annual Basis) for the Month of November, 1925

State	Chicken pox	Diph- theria	Measles	Mumps	Scar- let fever	Small- pox	Tuber- culosis	Ty- phoid	Whoop- ing cough
Alabama.....	0.24	1.08	0.03	0.45	0.52	0.77	0.96	0.66	0.26
Arizona.....	1.19	.78	.15	2.27	1.91	.00	1.91	.90	.09
Arkansas.....	.33	.50	.04	.05	.39	.05	.35	.77	.25
California.....	2.56	1.66	.16	2.28	1.72	.59	2.03	.19	.64
Colorado.....	2.45	2.10	.16	.32	1.07	.01	2.06	.69	.03
Connecticut.....	2.04	1.37	2.07	.26	1.47	.03	.89	.14	1.87
Delaware.....	1.04	1.76	.05	-----	.78	.00	.23	.26	.73
District of Columbia.....	2.15	2.86	.32	-----	2.47	.00	2.50	.27	.38
Florida.....	.15	1.57	.03	.10	.27	.16	1.41	.64	.38
Georgia.....	.12	.62	.02	.21	.18	.08	.23	.44	.14
Illinois.....	2.32	1.02	1.19	.37	2.24	.14	2.33	.36	.79
Indiana.....	-----	1.16	-----	-----	2.98	-----	-----	.29	-----
Iowa.....	1.01	.87	.08	.22	1.02	.19	.15	-----	.24
Kansas.....	3.13	.86	.20	.25	1.91	.19	1.31	.33	1.76
Louisiana.....	.09	1.00	.04	-----	.38	.22	1.74	1.06	.23
Maine.....	2.46	.39	.26	1.09	2.10	.00	.42	.40	2.47
Maryland.....	3.74	1.22	4.19	1.65	1.48	.00	1.88	.93	1.39
Massachusetts.....	2.37	1.03	9.79	.49	2.30	.00	1.55	.10	2.12
Michigan.....	2.27	1.39	1.20	.16	2.56	.05	1.17	.25	1.63
Minnesota.....	2.71	1.68	.11	-----	4.08	.07	.89	.12	.58
Mississippi.....	1.90	1.70	1.24	2.85	.52	.27	1.89	2.10	4.31
Missouri.....	1.07	1.38	.07	.19	1.95	.04	.55	.51	.25
Montana.....	2.11	.40	.30	9.44	2.24	.73	.49	.28	.79
New Jersey.....	3.40	1.33	2.25	-----	2.10	.00	1.27	.14	.51
New York.....	2.45	1.06	3.30	.45	1.17	.00	1.61	.20	1.00
North Carolina.....	1.21	2.40	.35	-----	1.42	.19	-----	.17	.73
North Dakota.....	.97	.34	.18	3.07	4.18	.18	.09	.16	1.40
Ohio.....	2.88	1.60	2.07	.20	2.19	.26	.97	.36	1.14
Oklahoma.....	.35	1.09	.05	.08	.73	.14	.31	1.75	.45
Oregon.....	2.42	2.62	.30	1.77	3.13	1.27	.82	.24	1.01
Pennsylvania.....	3.90	1.46	2.78	.49	2.42	.00	.83	.27	1.27
Rhode Island.....	1.01	.97	8.01	.08	.82	.00	.67	.19	1.22
South Dakota.....	1.42	.31	.07	2.03	6.70	.16	.18	.22	.47
Utah.....	16.65	3.85	.40	.42	2.35	.54	.35	.35	2.47
Vermont.....	8.18	.76	.48	3.35	3.14	.00	.35	.03	4.94
Virginia.....	1.78	2.48	1.33	-----	1.97	.08	.69	.69	1.36
Washington.....	4.26	1.09	.18	1.20	2.87	1.81	1.28	.21	1.16
West Virginia.....	1.38	1.22	.68	-----	1.71	.02	.31	.82	.43
Wisconsin.....	4.61	1.12	1.70	1.14	2.30	.16	.65	.17	2.18
Wyoming.....	5.32	.33	.11	.27	3.35	.93	-----	.66	.27

## PLAGUE-ERADICATIVE MEASURES IN THE UNITED STATES

The following items were taken from the reports of plague-eradication measures from the cities named:

*Los Angeles, Calif.*

Week ended Dec. 19, 1925:

Number of rats trapped.....	2, 281
Number of rats found to be plague infected.....	0
Number of squirrels examined.....	341
Number of squirrels found to be plague infected.....	0
Number of mice trapped.....	3, 708
Number of mice found to be plague infected.....	0

Date of discovery of last plague-infected rodent Nov. 6, 1925.

Date of last human case, Jan. 15, 1925.

*Oakland, Calif.*

(Including other East Bay communities)

Week ended Dec. 19, 1925:

Number of rats trapped.....	708
Number of rats found to be plague infected.....	0

## Totals:

Number of rats trapped Jan. 1 to Dec. 19, 1925.....	78, 574
Number of rats found to be plague infected.....	21
Number of squirrels examined May 1 to Aug. 1, 1925.....	7, 277
Number of squirrels found to be plague infected.....	0
Number of mice trapped Jan. 1 to Dec. 19, 1925.....	29, 344
Date of discovery of last plague-infected rat, Mar. 4, 1925.	
Date of last human case, Sept. 10, 1919.	

**GENERAL CURRENT SUMMARY AND WEEKLY REPORTS FROM CITIES**

*Diphtheria*.—For the week ended December 19, 1925, 36 States reported 1,618 cases of diphtheria. For the week ended December 20, 1924, the same States reported 2,029 cases of this disease. One hundred cities, situated in all parts of the country and having an aggregate population of more than 28,200,000, reported 875 cases of diphtheria for the week ended December 19, 1925. Last year for the corresponding week they reported 1,063 cases. The estimated expectancy for these cities was 1,320 cases. The estimated expectancy is based on the experience of the last nine years, excluding epidemics.

*Measles*.—Thirty-three States reported 4,791 cases of measles for the week ended December 19, 1925, and 1,406 cases of this disease for the week ended December 20, 1924. One hundred cities reported 2,933 cases of measles for the week this year, and 773 cases last year.

*Poliomyelitis*.—The health officers of 37 States reported 23 cases of poliomyelitis for the week ended December 19, 1925. The same States reported 28 cases for the week ended December 20, 1924.

*Scarlet fever*.—Scarlet fever was reported for the week as follows: Thirty-six States—this year, 3,349 cases; last year, 3,308 cases. One hundred cities—this year, 1,301 cases; last year, 1,695 cases; estimated expectancy, 999 cases.

*Smallpox*.—For the week ended December 19, 1925, 36 States reported 540 cases of smallpox. Last year for the corresponding week they reported 654 cases. One hundred cities reported smallpox for the week as follows: 1925, 96 cases; 1924, 226 cases; estimated expectancy, 58 cases. One death from smallpox was reported by these cities for the week—at Los Angeles, Calif.

*Typhoid fever*.—Four hundred and thirty-nine cases of typhoid fever were reported for the week ended December 19, 1925, by 35 States. For the corresponding week of 1924, the same States reported 632 cases of this disease. One hundred cities reported 86 cases of typhoid fever for the week this year and 302 cases for the corresponding week last year. The estimated expectancy for these cities was 76 cases.

*Influenza and pneumonia*.—Deaths from influenza and pneumonia were reported for the week by 93 cities, with a population of about 28,000,000 as follows: 1925, 885 deaths; 1924, 984.

## City reports for week ended December 19, 1925

The "estimated expectancy" given for diphtheria, poliomyelitis, scarlet fever, smallpox, and typhoid fever is the result of an attempt to ascertain from previous occurrence how many cases of the disease under consideration may be expected to occur during a certain week in the absence of epidemics. It is based on reports to the Public Health Service during the past nine years. It is in most instances the median number of cases reported in the corresponding week of the preceding years. When the reports include several epidemics or when for other reasons the median is unsatisfactory, the epidemic periods are excluded and the estimated expectancy is the mean number of cases reported for the week during nonepidemic years.

If reports have not been received for the full nine years, data are used for as many years as possible, but no year earlier than 1915 is included. In obtaining the estimated expectancy, the figures are smoothed when necessary to avoid abrupt deviations from the usual trend. For some of the diseases given in the table the available data were not sufficient to make it practicable to compute the estimated expectancy.

Division, State, and city	Population July 1, 1923, estimated	Chicken pox, cases re-ported	Diphtheria		Influenza		Meas-les, cases re-ported	Mumps, cases re-ported	Pneu-monia, deaths re-ported
			Cases, esti-mated expectancy	Cases re-ported	Cases re-ported	Deaths re-ported			
NEW ENGLAND									
Maine:									
Portland.....	73, 129	2	2	1	1	2	1	5	2
New Hampshire:									
Concord.....	22, 408	0	0	0	0	0	0	0	1
Vermont:									
Barre.....	110, 008	2	0	0	0	0	0	0	0
Massachusetts:									
Boston.....	770, 400	57	64	27	5	2	158	13	27
Fall River.....	129, 912	1	5	3	2	0	131	0	3
Springfield.....	144, 227	8	5	0	1	0	1	0	1
Worcester.....	191, 927	3	5	3	0	0	202	0	6
Rhode Island:									
Pawtucket.....	68, 790	6	3	3	0	0	3	0	5
Providence.....	242, 378	0	15	9	0	0	237	0	8
Connecticut:									
Bridgeport.....	1143, 555	3	10	4	1	1	93	0	2
Hartford.....	1134, 036	9	9	5	1	1	30	0	8
New Haven.....	172, 967	23	3	0	0	0	13	0	3
MIDDLE ATLANTIC									
New York:									
Buffalo.....	536, 718	29	30	8	2	3	2	1	9
New York.....	5, 937, 625	224	212	135	10	9	359	22	161
Rochester.....	317, 867	24	7	6	0	1	25	1	5
Syracuse.....	184, 511	5	9	5	0	0	3	24	4
New Jersey:									
Camden.....	124, 157	6	5	0	2	0	11	1	7
Newark.....	438, 690	63	19	16	2	0	35	5	11
Trenton.....	127, 390	8	5	2	0	0	3	0	5
Pennsylvania:									
Philadelphia.....	1, 922, 788	139	75	92	-----	2	72	11	53
Pittsburgh.....	613, 442	16	29	22	1	1	17	1	35
Reading.....	110, 917	10	5	5	0	0	0	0	3
EAST NORTH CENTRAL									
Ohio:									
Cincinnati.....	406, 312	16	17	18	-----	7	1	0	15
Cleveland.....	888, 519	74	45	39	2	7	435	1	26
Columbus.....	261, 082	15	9	4	0	0	1	0	0
Toledo.....	268, 338	17	16	6	0	1	17	0	5
Indiana:									
Fort Wayne.....	93, 573	4	6	1	0	0	0	0	4
Indianapolis.....	342, 718	20	16	12	0	1	18	2	14
South Bend.....	76, 709	1	2	1	0	0	0	0	0
Terre Haute.....	68, 939	3	3	1	0	0	0	0	2
Illinois:									
Chicago.....	2, 886, 121	115	182	56	9	4	24	7	58
Springfield.....	61, 833	6	3	3	0	0	1	3	2
Michigan:									
Detroit.....	1, 155, 000	88	75	40	9	5	199	1	49
Flint.....	117, 508	5	12	3	1	1	0	0	2
Grand Rapids.....	145, 947	9	6	0	1	0	2	0	3
Wisconsin:									
Madison.....	42, 510	11	1	0	0	0	0	0	0
Milwaukee.....	484, 595	139	26	43	0	0	5	4	6
Racine.....	64, 393	6	2	0	0	0	1	1	2
Superior.....	139, 671	4	1	0	0	0	1	0	1

<sup>1</sup>Population Jan. 1, 1920.

## City reports for week ended December 19, 1925—Continued

Division, State, and city	Population July 1, 1923, estimated	Chick- en por, cases re- ported	Diphtheria		Influenza		Meas- les, cases re- ported	Mumps, cases re- ported	Pneu- monia, deaths re- ported
			Cases, esti- mated expec- tancy	Cases re- ported	Cases re- ported	Deaths re- ported			
WEST NORTH CENTRAL									
Minnesota:									
Duluth.....	106,289	5	3	2	0	0	0	5	5
Minneapolis.....	409,125	46	23	13	0	1	0	3	18
St. Paul.....	241,891	21	19	11	0	0	5	1	9
Iowa:									
Davenport.....	61,262	4	2	1	0	-----	0	0	-----
Sioux City.....	79,662	6	3	0	0	-----	1	0	-----
Waterloo.....	39,667	1	2	1	0	-----	0	1	-----
Missouri:									
Kansas City.....	351,819	33	14	11	1	1	3	0	7
St. Joseph.....	78,232	7	4	0	0	0	2	0	3
St. Louis.....	803,853	26	66	46	0	0	3	0	-----
North Dakota:									
Fargo.....	24,841	0	1	0	0	0	0	16	0
Grand Forks.....	14,547	2	1	0	0	-----	0	0	-----
South Dakota:									
Aberdeen.....	15,829	8	0	0	0	-----	0	45	-----
Sioux Falls.....	29,206	5	1	0	0	0	1	0	0
Nebraska:									
Lincoln.....	53,761	2	2	0	0	0	0	0	1
Omaha.....	204,382	10	6	2	0	0	0	0	11
Kansas:									
Topeka.....	52,555	40	2	1	0	0	0	2	2
Wichita.....	79,261	12	8	0	0	0	3	0	7
SOUTH ATLANTIC									
Delaware:									
Wilmington.....	117,728	4	3	12	0	0	8	0	2
Maryland:									
Baltimore.....	773,580	152	41	20	11	2	268	76	30
Cumberland.....	32,361	1	2	0	0	0	0	0	2
Frederick.....	11,301	1	1	0	0	0	1	0	0
District of Columbia:									
Washington.....	437,571	16	18	37	3	0	7	0	14
Virginia:									
Lynchburg.....	30,277	17	1	3	0	0	0	0	1
Norfolk.....	159,089	14	4	1	0	0	0	0	9
Richmond.....	181,044	13	11	11	0	0	2	1	9
Roanoke.....	55,502	3	4	1	0	0	0	0	3
West Virginia:									
Charleston.....	45,597	1	2	1	0	0	0	1	4
Wheeling.....	56,208	1	2	0	0	0	1	0	1
North Carolina:									
Raleigh.....	29,171	0	2	1	0	0	0	0	1
Wilmington.....	35,719	3	1	0	0	0	1	0	1
Winston-Salem.....	56,230	2	2	3	0	0	8	0	6
South Carolina:									
Charleston.....	71,245	0	2	2	0	1	0	0	4
Columbia.....	39,688	2	1	2	0	0	0	1	0
Greenville.....	25,789	-----	1	-----	-----	-----	-----	-----	-----
Georgia:									
Atlanta.....	222,963	2	5	3	41	1	0	1	7
Brunswick.....	15,937	2	0	0	0	0	0	0	0
Savannah.....	89,448	1	2	1	10	1	1	0	4
Florida:									
St. Petersburg.....	24,403	0	1	0	0	0	0	0	1
Tampa.....	56,050	0	2	2	0	0	0	0	6
EAST SOUTH CENTRAL									
Kentucky:									
Covington.....	57,877	0	3	4	0	0	0	0	0
Louisville.....	257,671	1	10	3	0	1	2	0	9
Tennessee:									
Memphis.....	170,067	5	10	2	-----	2	0	0	8
Nashville.....	121,128	1	4	1	-----	1	13	0	4
Alabama:									
Birmingham.....	198,901	8	5	1	5	5	0	0	16
Mobile.....	63,858	4	1	1	0	1	0	1	4
Montgomery.....	45,383	8	2	5	2	0	0	19	0

\* Population Jan. 1, 1920.

## City reports for week ended December 19, 1925—Continued

Division, State, and city	Population July 1, 1923, estimated	Chicken pox, cases reported	Diphtheria		Influenza		Measles, cases reported	Mumps, cases reported	Pneumonia, deaths reported
			Cases, estimated expectancy	Cases reported	Cases reported	Deaths reported			
WEST SOUTH CENTRAL									
Arkansas:									
Fort Smith.....	30,635	2	2	1	0	0	0	0	
Little Rock.....	70,916	1	2	0	6	0	2	0	1
Louisiana:									
New Orleans.....	404,575	3	12	17	3	3	0	0	10
Shreveport.....	54,590		0						
Oklahoma:									
Oklahoma City.....	101,150	0	3	0	0	1	0	0	3
Texas:									
Dallas.....	177,274	8	14	8	1	2	0	0	9
Galveston.....	46,877	0	1	3	0	0	0	0	1
Houston.....	154,970	1	4	19	0	1	0	0	8
San Antonio.....	184,727	1	3	4	0	1	0	0	7
MOUNTAIN									
Montana:									
Billings.....	16,927	5	1	0	0	0	0	7	0
Great Falls.....	27,787	13	2	0	0	0	0	108	0
Helena.....	12,037	0	0	0	0	0	0	0	0
Missoula.....	12,668	7	1	0	0	0	0	0	1
Idaho:									
Boise.....	22,806	0	1	0	0	0	0	0	0
Colorado:									
Denver.....	272,031	29	13	11	0	0	3	0	9
Pueblo.....	43,519	2	4	4	0	0	0	0	0
New Mexico:									
Albuquerque.....	16,048	4	1	0	0	0	0	2	2
Arizona:									
Phoenix.....	33,899	0		0	0	0	0	0	1
Utah:									
Salt Lake City.....	126,241	42	2	4	0	0	0	15	3
Nevada:									
Reno.....	12,429	0	0	0	0	0	0	0	0
PACIFIC									
Washington:									
Seattle.....	1,315,685	47	7	9	0		10	46	
Spokane.....	104,573	44	5	3	0	0	0	0	
Tacoma.....	101,731	2	3	3	0	0	0	0	2
Oregon:									
Portland.....	273,621	2	7	15	0	0	2	4	12
California:									
Los Angeles.....	666,853	29	37	31	8	5	14	9	18
Sacramento.....	69,950	8	2	0	1	0	1	1	5
San Francisco.....	539,038	34	24	18	5	0	3	2	2

1 Population Jan. 1, 1920.

## City reports for week ended December 19, 1925—Continued

Division, State, and city	Scarlet fever		Smallpox			Tuber- culo- sis, deaths re- ported	Typhoid fever			Whoop- ing cough, cases re- ported	Deaths, all causes
	Cases, esti- mated expect- ancy	Cases re- ported	Cases, esti- mated expect- ancy	Cases re- ported	Deaths re- ported		Cases, esti- mated expect- ancy	Cases re- ported	Deaths re- ported		
NEW ENGLAND											
Maine:											
Portland.....	2	4	0	0	0	0	0	0	0	2	24
New Hampshire:											
Concord.....	0	0	0	0	0	0	0	0	0	0	11
Vermont:											
Barre.....	1	0	0	0	0	0	0	0	0	0	0
Massachusetts:											
Boston.....	40	50	0	0	0	16	2	2	1	70	231
Fall River.....	3	2	0	0	0	1	1	1	1	12	26
Springfield.....	8	3	0	0	0	0	0	0	0	2	30
Worcester.....	11	5	0	0	0	1	0	0	0	11	42
Rhode Island:											
Pawtucket.....	1	1	0	0	0	0	0	0	0	4	24
Providence.....	8	3	0	0	0	5	1	0	0	0	72
Connecticut:											
Bridgeport.....	6	7	0	0	0	3	0	0	0	1	33
Hartford.....	7	3	0	0	0	2	0	1	0	1	34
New Haven.....	8	2	0	0	0	3	1	0	0	2	38
MIDDLE ATLANTIC											
New York:											
Buffalo.....	22	13	0	0	0	7	1	4	1	18	139
New York.....	155	169	0	1	0	103	13	22	7	48	1,390
Rochester.....	12	18	0	0	0	2	1	0	0	7	80
Syracuse.....	12	2	0	0	0	2	0	0	0	40	46
New Jersey:											
Camden.....	3	13	0	0	0	1	1	0	0	0	30
Newark.....	16	17	0	0	0	6	2	2	0	11	115
Trenton.....	3	2	0	0	0	4	0	0	0	0	45
Pennsylvania:											
Philadelphia.....	58	76	1	0	0	43	4	5	0	34	553
Pittsburgh.....	30	58	0	0	0	8	1	0	0	9	162
Reading.....	1	7	0	0	0	0	0	0	0	4	43
EAST NORTH CENTRAL											
Ohio:											
Cincinnati.....	13	11	0	1	0	13	1	0	1	19	147
Cleveland.....	31	32	1	0	0	8	2	1	0	50	181
Columbus.....	10	18	1	7	0	3	1	3	0	5	65
Toledo.....	14	27	0	0	0	3	1	3	1	5	55
Indiana:											
Fort Wayne.....	2	2	1	0	0	0	1	0	0	0	17
Indianapolis.....	10	13	4	27	0	3	0	1	0	18	115
South Bend.....	4	6	0	2	0	0	0	0	0	2	12
Terre Haute.....	2	5	1	0	0	3	0	1	0	0	20
Illinois:											
Chicago.....	116	152	1	0	0	50	6	7	2	44	702
Springfield.....	2	0	0	0	0	1	0	0	0	0	22
Michigan:											
Detroit.....	77	121	2	0	0	19	3	4	0	39	274
Flint.....	9	3	1	0	0	0	0	0	0	26	19
Grand Rapids.....	8	20	0	0	0	0	1	0	0	26	28
Wisconsin:											
Madison.....	2	6	0	0	0	0	0	1	0	3	90
Milwaukee.....	28	15	1	0	0	7	0	0	0	30	116
Racine.....	4	4	0	0	0	0	0	1	0	7	11
Superior.....	2	3	1	0	0	0	0	0	0	0	9
WEST NORTH CENTRAL											
Minnesota:											
Duluth.....	5	11	0	0	0	2	0	0	0	0	24
Minneapolis.....	38	58	5	0	0	5	1	2	0	0	116
St. Paul.....	18	53	4	2	0	5	1	5	0	6	61
Iowa:											
Davenport.....	1	4	0	0	0	0	0	0	0	0	0
Sioux City.....	2	0	1	9	0	0	0	0	0	0	0
Waterloo.....	3	0	0	0	0	0	0	0	0	1	0

<sup>1</sup> Pulmonary tuberculosis only.



## City reports for week ended December 19, 1925—Continued

Division, State, and city	Scarlet fever		Smallpox			Tuber- culo- sis deaths re- ported	Typhoid fever			Whoop- ing cough, cases re- ported	Deaths, all causes
	Cases, esti- mated expect- ancy	Cases re- ported	Cases, esti- mated expect- ancy	Cases re- ported	Deaths re- ported		Cases, esti- mated expect- ancy	Cases re- ported	Deaths re- ported		
WEST NORTH CENTRAL—continued											
Missouri:											
Kansas City.....	11	13	0	0	0	7	1	0	0	8	98
St. Joseph.....	2	1	0	0	0	1	0	0	0	0	32
St. Louis.....	32	63	0	0	0	9	2	0	1	0	229
North Dakota:											
Fargo.....	2	6	1	0	0	2	0	0	0	9	7
Grand Forks.....	1	0	0	0	0	0	0	0	0	0	0
South Dakota:											
Aberdeen.....	1	0	1	2	0	0	0	0	0	0	0
Sioux Falls.....	2	5	0	0	0	0	0	0	0	0	0
Nebraska:											
Lincoln.....	2	2	0	0	0	2	0	0	0	8	17
Omaha.....	6	11	2	7	0	0	1	0	0	1	64
Kansas:											
Topeka.....	1	2	1	0	0	1	0	0	0	5	13
Wichita.....	3	4	1	0	0	0	0	0	0	2	13
SOUTH ATLANTIC											
Delaware:											
Wilmington.....	3	4	0	0	0	1	1	1	0	1	31
Maryland:											
Baltimore.....	23	21	0	0	0	11	4	1	0	27	204
Cumberland.....	1	0	0	0	0	0	0	0	0	0	15
Frederick.....	1	1	0	0	0	0	0	0	0	0	2
District of Colum- bia:											
Washington.....	20	23	1	0	0	3	4	2	0	12	124
Virginia:											
Lynchburg.....	0	2	0	0	0	0	0	0	0	0	7
Norfolk.....	2	1	0	0	0	4	0	0	0	0	0
Richmond.....	6	9	0	0	0	6	0	0	0	1	61
Roanoke.....	1	0	0	0	0	1	0	0	0	3	15
West Virginia:											
Charleston.....	1	2	0	0	0	0	0	0	0	2	11
Wheeling.....	2	4	0	0	0	2	1	1	0	0	23
North Carolina:											
Raleigh.....	1	2	0	0	0	1	0	0	0	0	10
Wilmington.....	1	0	0	5	0	0	0	0	0	0	13
Winston-Salem.....	1	3	0	1	0	2	0	0	0	2	16
South Carolina:											
Charleston.....	1	4	0	0	0	3	0	1	0	0	32
Columbia.....	0	0	0	0	0	0	0	0	0	0	0
Greenville.....	1	0	0	0	0	0	0	0	0	0	0
Georgia:											
Atlanta.....	4	2	2	0	0	10	1	1	2	1	78
Brunswick.....	0	0	0	0	0	0	0	0	0	0	3
Savannah.....	0	0	0	0	0	3	1	1	0	0	35
Florida:											
St. Petersburg.....	0	0	0	0	0	1	0	0	0	0	17
Tampa.....	0	2	0	0	0	1	1	0	0	1	32
EAST SOUTH CENTRAL											
Kentucky:											
Covington.....	2	2	0	0	0	3	0	0	0	0	23
Louisville.....	4	6	1	0	0	2	1	2	0	2	79
Tennessee:											
Memphis.....	3	6	0	1	0	5	1	0	0	0	71
Nashville.....	3	5	1	0	0	1	1	1	0	0	35
Alabama:											
Birmingham.....	4	2	0	1	0	7	1	1	1	3	73
Mobile.....	1	0	1	0	0	3	0	1	0	0	26
Montgomery.....	0	1	0	0	0	0	0	0	0	0	11

## City reports for week ended December 19, 1925—Continued

Division, State, and city	Scarlet fever		Smallpox			Tuber- culosis, deaths re- ported	Typhoid fever			Whoop- ing cough, cases re- ported	Deaths, all causes
	Cases, esti- mated expect- ancy	Cases re- ported	Cases, esti- mated expect- ancy	Cases re- ported	Deaths re- ported		Cases, esti- mated expect- ancy	Cases re- ported	Deaths re- ported		
WEST SOUTH CENTRAL											
Arkansas:											
Fort Smith.....	1	1	0	0	-----	-----	0	1	-----	0	-----
Little Rock.....	2	0	0	0	0	1	0	1	0	0	-----
Louisiana:											
New Orleans.....	5	9	1	2	0	22	3	2	1	0	155
Shreveport.....	0	-----	1	-----	-----	-----	1	-----	-----	-----	-----
Oklahoma:											
Oklahoma City.....	2	3	1	1	0	1	0	1	0	0	26
Texas:											
Dallas.....	3	7	1	0	0	4	1	0	0	21	61
Galveston.....	0	0	0	0	0	2	1	2	0	0	13
Houston.....	2	1	1	2	0	2	0	0	0	0	66
San Antonio.....	1	1	0	1	0	3	1	0	0	0	56
MOUNTAIN											
Montana:											
Billings.....	1	1	1	1	0	0	0	0	0	0	3
Great Falls.....	1	6	1	0	0	0	0	0	0	7	3
Helena.....	0	0	0	0	0	0	0	0	0	0	6
Missoula.....	0	1	0	0	0	0	0	0	0	0	1
Idaho:											
Boise.....	1	1	0	1	0	0	0	0	0	1	3
Colorado:											
Denver.....	10	14	6	2	0	8	0	1	0	18	79
Pueblo.....	3	0	0	0	0	1	0	0	0	2	14
New Mexico:											
Albuquerque.....	1	3	0	0	0	1	0	1	0	0	7
Arizona:											
Phoenix.....	-----	4	-----	0	0	9	-----	0	0	0	13
Utah:											
Salt Lake City.....	4	7	3	0	0	0	1	0	0	9	29
Nevada:											
Reno.....	0	0	0	0	0	1	0	0	0	0	6
PACIFIC											
Washington:											
Seattle.....	7	19	1	2	-----	-----	1	3	-----	5	-----
Spokane.....	5	20	5	1	-----	-----	0	0	-----	2	-----
Tacoma.....	2	2	1	19	0	0	0	0	0	5	20
Oregon:											
Portland.....	7	27	6	1	0	3	1	0	0	0	-----
California:											
Los Angeles.....	20	32	1	8	1	13	3	3	0	4	227
Sacramento.....	2	3	0	10	0	5	0	0	0	0	29
San Francisco.....	11	12	1	1	0	10	2	0	0	4	131

## City reports for week ended December 19, 1925—Continued

Division, state, and city	Cases in 10 weeks		Deaths in 10 weeks		Population		Polio cases in 10 weeks		Infantile polio cases in 10 weeks	
	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases	Deaths
NEW ENGLAND										
Massachusetts										
Boston	0	0	1	0	0	0	1	0	0	0
MIDDLE ATLANTIC										
New York										
Buffalo	0	0	0	0	0	0	0	0	0	1
New York	1	1	1	1	0	0	2	0	0	0
Rochester	0	1	0	0	0	0	0	1	0	0
Pennsylvania										
Philadelphia	0	0	1	0	0	0	0	0	0	0
EAST NORTH CENTRAL										
Ohio										
Cleveland	0	0	0	0	0	0	0	0	0	2
Columbus	1	0	0	0	0	0	0	0	0	0
Illinois										
Chicago	2	1	0	0	0	0	0	0	0	0
SOUTH ATLANTIC										
Maryland										
Baltimore	0	0	1	0	0	0	0	0	0	0
Georgia										
Savannah	0	0	0	0	0	1	0	0	0	0
LAST SOUTH CENTRAL										
Alabama										
Birmingham	0	0	0	0	1	0	0	0	0	0
Mobile	0	0	0	0	0	1	0	0	0	0
WEST SOUTH CENTRAL										
Louisiana										
New Orleans	0	0	0	0	1	1	0	0	0	0
Texas										
Houston	0	0	0	0	0	1	0	0	0	0
San Antonio	0	0	0	0	0	1	0	0	0	0
MOUNTAIN										
Colorado										
Denver	0	0	0	1	0	0	0	0	0	0
Utah										
Salt Lake City	0	1	0	0	0	0	0	0	0	0
PACIFIC										
Washington										
Seattle	1	0	0	0	0	0	0	0	0	0
Spokane	4	0	0	0	0	0	0	0	0	0
Oregon										
Portland	1	0	0	0	0	0	1	0	0	0
California										
Los Angeles	0	0	0	1	1	0	0	0	0	0
San Francisco	0	0	0	0	0	0	0	0	0	1

The following table gives the rates per 100,000 population for 103 cities for the 10-week period ended December 19, 1925. The population figures used in computing the rates were estimated as of July 1, 1923, as this is the latest date for which estimates are available. The 103 cities reporting cases had an estimated aggregate population of nearly 29,000,000, and the 96 cities reporting deaths had more than 28,000,000 population. The number of cities included in

each group and the aggregate populations are shown in a separate table below:

*Summary of weekly reports from cities, October 11 to December 19, 1925—Annual rates per 100,000 population*<sup>1</sup>

## DIPHTHERIA CASE RATES

	Week ended—									
	Oct. 17	Oct. 24	Oct. 31	Nov. 7	Nov. 14	Nov. 21	Nov. 28	Dec. 5	Dec. 12	Dec. 19
103 cities.....	154	<sup>2</sup> 108	<sup>3</sup> 132	166	174	181	159	171	164	<sup>4</sup> 163
New England.....	124	<sup>5</sup> 97	137	97	127	144	104	124	107	137
Middle Atlantic.....	129	129	149	126	141	143	150	137	139	147
East North Central.....	174	189	195	187	194	189	162	172	166	161
West North Central.....	236	259	252	267	240	226	173	280	243	180
South Atlantic.....	224	<sup>6</sup> 268	228	211	252	299	221	221	205	<sup>7</sup> 207
East South Central.....	97	109	97	137	69	132	120	120	132	97
West South Central.....	93	102	264	199	213	176	181	278	185	<sup>8</sup> 253
Mountain.....	162	372	<sup>9</sup> 176	286	248	315	134	239	172	181
Pacific.....	110	142	157	148	145	186	165	128	200	186

## MEASLES CASE RATES

103 cities.....	70	<sup>2</sup> 93	<sup>3</sup> 105	154	174	220	212	353	441	<sup>4</sup> 532
New England.....	447	<sup>5</sup> 599	604	852	937	1,130	827	1,583	2,025	2,159
Middle Atlantic.....	65	87	110	159	171	256	289	339	453	520
East North Central.....	25	47	57	74	88	103	124	255	307	503
West North Central.....	10	10	12	15	10	15	31	19	25	37
South Atlantic.....	55	<sup>6</sup> 40	59	154	232	289	353	552	578	<sup>7</sup> 615
East South Central.....	6	40	17	17	17	51	34	40	23	86
West South Central.....	0	14	5	9	9	9	5	5	5	<sup>8</sup> 19
Mountain.....	10	29	<sup>9</sup> 20	38	47	29	10	10	38	25
Pacific.....	29	12	15	17	20	32	26	58	55	81

## SCARLET FEVER CASE RATES

103 cities.....	126	<sup>2</sup> 132	<sup>3</sup> 160	170	191	175	205	220	231	<sup>4</sup> 241
New England.....	132	<sup>5</sup> 130	201	271	246	209	214	224	194	199
Middle Atlantic.....	75	96	106	111	142	144	149	166	173	190
East North Central.....	151	142	194	167	189	196	220	273	302	300
West North Central.....	276	296	305	384	400	421	454	433	493	471
South Atlantic.....	137	<sup>6</sup> 134	193	185	172	123	144	127	162	<sup>7</sup> 166
East South Central.....	154	132	80	109	183	137	189	177	120	126
West South Central.....	56	42	42	102	121	93	139	111	148	<sup>8</sup> 93
Mountain.....	48	115	<sup>9</sup> 195	172	181	162	172	249	162	286
Pacific.....	142	133	148	162	206	197	249	226	194	255

## SMALLPOX CASE RATES

103 cities.....	8	<sup>2</sup> 7	<sup>3</sup> 10	10	8	17	16	13	21	<sup>4</sup> 21
New England.....	0	<sup>5</sup> 7	0	0	0	0	0	0	0	0
Middle Atlantic.....	0	0	0	0	0	0	0	0	0	1
East North Central.....	8	4	17	12	13	32	32	14	34	27
West North Central.....	0	4	27	12	4	17	10	19	19	37
South Atlantic.....	6	<sup>6</sup> 0	6	12	6	21	2	4	8	<sup>7</sup> 12
East South Central.....	48	6	6	29	34	11	11	11	6	11
West South Central.....	0	0	0	0	0	0	9	14	9	<sup>8</sup> 24
Mountain.....	29	10	<sup>9</sup> 10	19	19	19	10	0	105	38
Pacific.....	58	78	46	49	44	78	99	110	131	119

<sup>1</sup> The figures given in this table are rates per 100,000 population, annual basis, and not the number of cases reported. Populations used are estimated as of July 1, 1923.

<sup>2</sup> Barre, Vt., and Winston-Salem, N. C., not included.

<sup>3</sup> Helena, Mont., not included.

<sup>4</sup> Greenville, S. C., and Shreveport, La., not included.

<sup>5</sup> Barre, Vt., not included.

<sup>6</sup> Winston-Salem, N. C., not included.

<sup>7</sup> Greenville, S. C., not included.

<sup>8</sup> Shreveport, La., not included.

TREASURY DEPARTMENT

# PUBLIC HEALTH REPORTS

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JANUARY 15 - - 1926

## SPECIAL ARTICLE

Stream Pollution Investigation of the Public  
Health Service



WASHINGTON  
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1926

## UNITED STATES PUBLIC HEALTH SERVICE

HUGH S. CUMMING, *Surgeon General*

### DIVISION OF SANITARY REPORTS AND STATISTICS

Asst. Surg. Gen. B. J. LLOYD, *Chief of Division*

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# PUBLIC HEALTH REPORTS

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No. 3

## A REVIEW OF THE WORK OF THE UNITED STATES PUBLIC HEALTH SERVICE IN INVESTIGATIONS OF STREAM POLLUTION<sup>1</sup>

By W. H. FROST, Surgeon, United States Public Health Service, in Charge of Stream Pollution Investigations

In March, 1901, Congress provided for the erection of a laboratory by the United States Public Health Service "for the investigation of infectious and contagious diseases and matters pertaining to the public health," and in the same year a division of scientific research was organized in the Bureau of the Public Health Service. Therefore the year 1901 may be said to mark the establishment of systematic and continued scientific investigation as a recognized function of the Public Health Service. Considering the rôle which sewage-polluted drinking water was playing at that time in the spread of typhoid fever and other infectious diseases, and recalling that the membership of the Hygienic Laboratory Advisory Board included the great leader in sanitary science, Prof. William T. Sedgwick, it was inevitable that attention should have been directed at once to the importance of comprehensive studies of stream pollution in relation to disease. That this was true is evidenced by frequently recurring references in the annual reports of the director of the Hygienic Laboratory during its early years, but the number of other urgent problems was so great and the resources of the laboratory were so limited that for several years work in this field was of necessity limited to occasional studies of local water supplies, undertaken usually in connection with investigations into the causes of the epidemic or endemic prevalence of typhoid fever in various localities.

In 1910 the first systematic investigation of the status and effects of sewage pollution in any large area was begun by the assignment of A. J. McLaughlin, surgeon, United States Public Health Service,

<sup>1</sup> Editorial note: This is one of four papers of a symposium on stream pollution presented at the meeting of the sanitary engineering division of the American Society of Civil Engineers at Cincinnati, Ohio, April 23, 1925, and published in the *Proceedings*, Vol. LI, No. 9, November, 1925. The other papers, which will appear in early issues of *Public Health Reports* and will later be combined with the present article and issued in pamphlet form, are as follows: "The rate of deoxygenation of polluted waters," by Emery J. Theriault; "The rate of atmospheric reoxygenation of sewage-polluted streams," by H. W. Streeter; and "Quantitative studies of bacterial pollution and natural purification in the Ohio and Illinois Rivers," by J. K. Hoskins.

to make a survey of cities in the Great Lakes region, with instructions to investigate the extent of the pollution of their water supplies and its relation to the prevalence of typhoid fever and other water-borne diseases, and to examine State and municipal ordinances relating to its control. Upon the completion of these surveys and of the reports thereon, which were published as *bulletins* of the Hygienic Laboratory, Doctor McLaughlin was assigned, by request of the health authorities of States bordering on the Missouri River, to make a survey of the sewage pollution of that stream. In this work, which was carried out during the summer of 1912, Doctor McLaughlin for the first time had the assistance of another officer of the service and was enabled, through the cooperation of the health authorities of the States concerned and of certain cities on the river, to establish several laboratories and make a rather extensive series of bacteriological examinations.

By the time this work had been brought to a close the International Joint Commission, established under the treaty between the United States and the Dominion of Canada, had taken up the question of regulating the pollution of international boundary waters, and, on request of the commission, Doctor McLaughlin was granted leave of absence from the service to accept appointment as chief sanitary expert and director of field work in investigations undertaken by the commission. These studies, although undertaken independently by the International Joint Commission, may, in a certain sense, be considered as an extension and continuation of the survey of Great Lakes cities previously undertaken by Doctor McLaughlin for the Public Health Service.

In the meantime, by an act approved August 14, 1912, Congress had extended the function of the Public Health Service to include, among other added duties, that of investigating "the diseases of man and conditions influencing the propagation and spread thereof, including sanitation and sewage and the pollution, either directly or indirectly, of the navigable streams and lakes of the United States," and in 1913 made a special appropriation, which has since been continued annually, for carrying out these provisions. The Public Health Service was thus enabled for the first time, in 1913, to establish field laboratories at such points in the United States as might be most suitable for special purposes and to employ a scientific personnel especially qualified to conduct investigations in various fields of research.

It was under this extended authority that in the summer of 1913 a group of sanitary engineers, chemists, biologists, and bacteriologists was assembled and a beginning made on a concerted plan for investigations relative to stream pollution. As originally organized, the work undertaken comprised the following main divisions:

1. Studies of the biochemistry of sewage and industrial wastes were undertaken at the Hygienic Laboratory under the direction of Earle B. Phelps, affiliate, American Society of Civil Engineers, who was appointed in that year as chief of the division of chemistry in the laboratory. These studies were devoted especially to testing and developing the application of biological oxygen demand determinations to the measurement of the potential polluting effect of sewage and the capacity of streams for its oxidation, a field of research to which Mr. Phelps had already made notable contributions.

2. Intimately connected with these was a series of studies, likewise under the direction of Mr. Phelps but carried on for the most part at various points outside of Washington, D. C., attempting, by means of experimental installations, to devise better methods for the treatment of various important industrial wastes for which economical and effective processes had not previously been evolved.

3. Under the direction of H. S. Cumming, surgeon, United States Public Health Service, the present Surgeon General of the service, a study of the pollution and natural purification of the Potomac River was undertaken. The Potomac was selected as a type of tidal stream, and special attention was paid in this study to the effect of sewage from the city of Washington on the waters near the mouth of the river, where important shellfish beds are situated. This investigation, which was completed in the summer of 1914, was then extended and continued as a survey of the sewage pollution of various coastal waters, with special reference to the contamination of shellfish.

4. At the same time, in the summer of 1913, work was begun on a study of the pollution and natural purification of the Ohio River, which was selected as a typical large inland stream, receiving sewage, usually without treatment, from all cities on its watershed, and at the same time being used by many of these cities as their source of water supply. Headquarters for this work were established in Cincinnati, Ohio, with subsidiary temporary laboratories at five other points along the river.

These several studies although conducted by working parties organized into separate units, were closely knitted together by being all under the direction of the Division of Scientific Research in the Bureau of the Public Health Service and by the intimate relations which were maintained between those in charge of the several organizations. In fact, they were considered and pursued, not as separate studies, but as interdependent parts of a common and general plan. They were all continued, substantially as originally organized in 1913, until 1917, when it was necessary to discontinue

them in order to utilize their personnel in various other more urgent duties during the period of the World War.

By the latter part of 1919, when it was possible to resume the investigations, the original personnel had become much dispersed by necessary assignments to other duties and by resignations. Likewise, the funds available for these investigations, although not actually reduced to any great extent, were relatively diminished by the material increase in all scales of cost, so that in the reorganization it was necessary to discontinue the investigations of coastal waters, which had been brought to a fairly definite conclusion, and to reestablish the other work at a single base in Cincinnati, which has since served as central headquarters for experimental studies of stream pollution and as the base from which parties have been sent out for work in the field.

Shortly after this reorganization the Surgeon General, recognizing the need for authoritative advice in the planning and conduct of these investigations, requested Dr. Stephen A. Forbes, professor emeritus of biology at the University of Illinois and director of the Illinois State Natural History Survey; Dr. Edwin O. Jordan, professor of hygiene and bacteriology at the University of Illinois; Langdon Pearse, member American Society of Civil Engineers, sanitary engineer of the Sanitary District of Chicago; and Earle B. Phelps, affiliate, American Society of Civil Engineers, consulting sanitary engineer, of New York, N. Y., to serve as consultants in studies of stream pollution. These consultants, meeting once or twice each year with the staff engaged in the investigations, and keeping in close touch with the progress made, have rendered generous and valuable assistance in shaping plans, devising methods, and interpreting results. Subsequently Joseph W. Ellms, member American Society of Civil Engineers, consented to serve as special consultant in studies of water-purification processes and has had an active share in the development of investigations along this line.

Since 1919 the principal field investigations undertaken from this base have been—

1. A study of the pollution and natural purification of the Illinois River, undertaken chiefly to check and extend observations previously made on the Potomac and the Ohio Rivers relative to the laws governing natural purification in streams.

2. A survey of representative municipal sewage-disposal plants in various parts of the United States to collect information as to their efficiency and cost in actual operation.

3. A collective study of municipal water-purification plants, chiefly rapid sand filters, as operated in a number of cities on the Ohio River and elsewhere, with a special view to ascertaining more precisely the

relations between pollution of the raw water and quality of the effluent under varying processes and conditions of operation.

Along with these field studies experimental investigations have been consistently pursued in the Cincinnati laboratory, chiefly along the following lines:

(a) An attempt has been and is being made, so far without notable success, to reproduce on a small scale, adapted for intensive experimental study, the phenomena of bacterial purification which are now known to take place in natural streams. This has included as a necessary item rather extensive research into the biology of various plankton forms in relation to bacterial purification.

(b) Studies of the biological oxygen demand of sewage, industrial wastes, and polluted river waters have been continued in the endeavor to establish more definitely the laws governing the natural processes of oxidation in streams and to check and improve the precision of methods for making the determinations required.

(c) As an extension of the collective study of municipal filter plants which was completed in 1924, experimental studies are now being made of the relation of the pollution of raw water to the quality of effluent obtainable by rapid sand filtration and chlorination, utilizing an experimental plant on the laboratory grounds which is designed so that the conditions of loading and of operation can be varied at will through a wide range.

In addition to these studies, which have been pursued at Cincinnati, work has been going on for several years at the Hygienic Laboratory under the direction of Dr. William Mansfield Clark, in a study of the physical chemistry of coagulation, with special reference to applications in water purification.

It would be impossible within a brief space, and is, moreover, not pertinent to this paper, to relate in more detail the history of the various undertakings which have been outlined, nor will any discussion of the results be attempted. As far as they have matured, they have already been made generally available in a considerable number of publications,<sup>2</sup> and some of them, with the addition of some more recent data, have been discussed in the papers by Messrs. Theriault, Streeter, and Hoskins, which follow.

In conclusion, it will be more appropriate to review briefly the broad general considerations which have determined the scope and direction of such studies as the Public Health Service has undertaken in this field since it has been in a position to make and pursue any general plan, that is, since 1913.

The first consideration, of course, has been the limitation of available resources, which have sufficed in most years for the maintenance of a staff not exceeding 6 to 12 workers in the higher grades, enough to

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<sup>2</sup> A list of the more important of these publications is given in the appended bibliography.

form a compact group for consistent work on definite lines, but obviously not sufficient to permit of any wide dispersion. The governing considerations in deciding on the use to be made of these resources have been: The existing status and trend of conditions with respect to sewage pollution in the waterways of this country; the status of sanitary science as applied to devising the remedial measures necessary to meet present and future conditions; and the facilities available through State and municipal organizations, independent institutions for research, and the engineering profession at large for conducting such further investigations as may be required.

With respect to sewage pollution, the status in the United States was, in 1913, and is to-day, that the greater part of the sewage from cities, probably not less than 85 to 90 per cent of it, is discharged without treatment into the most convenient stream. Where the dilution is insufficient for prompt oxidation and removal of the sewage, the result is the establishment of a gross nuisance in the immediate vicinity, offensive to the sense of decency and frequently injurious to the financial interests of the community responsible for the pollution. The remedy for this, however, is at hand, as the ingenuity of sanitary engineers, chemists, and biologists has already devised effective means for the treatment of sewage at reasonable cost, and self-interest may be relied upon to impel cities which suffer nuisance from their own sewage, to avail themselves of this remedy. The abatement of such gross nuisance is usually a local matter, requiring no broad plan of concerted action between widely separated communities, and, as the principles of the required treatment are already well established, such special investigation as is required is usually a matter of detail, to ascertain the particular process or combination of processes which will serve most economically and effectively in the particular case. Obviously, such investigations are the business of the State and local authorities and of the practicing engineers retained by them rather than of a Federal agency.

The more usual and more serious result, where dilution and current are sufficient to prevent immediate gross nuisance from the discharge of untreated sewage, is to contaminate the water supplies of other cities taken from the same river system at downstream points, or, in the case of tidal waters, dangerously to contaminate waters from which shellfish are taken. In the case of public water supplies necessarily taken from such polluted sources the immediate remedy is artificial purification of the supply. For this, again, sanitary science has already provided the means in various processes of treatment, economically practicable and of such efficiency that they may be relied upon to give safe effluents from water which is highly but not indefinitely polluted. In 1913 there were, to be

sure, a number of cities using dangerously polluted water supplies, but in every instance the remedy—installation of adequate water-purification works—was obvious, and such investigations as were required were not general, to ascertain the practicability of a remedy, but local and special, to decide upon the details of the installation best adapted to apply established principles to the problem at hand. It is clear that these local investigations, like those required for local sewage treatment installations, are not the function of the Public Health Service.

In general, the situation up to the present time has been that, notwithstanding the customary practice of discharging raw sewage into streams, those cities which have had to take their water supplies from the rivers thus polluted have almost invariably been able, by applying established processes of artificial water purification, to secure water supplies of good, safe quality. This has been true because the volume of the larger rivers is such as to afford great dilution, even for the sewage of the larger cities, and because of the distances between the sewer outlets of these cities and the water-supply intakes of other cities downstream are such as to permit of great reduction in pollution by the natural agencies of purification. Similarly, in coastal waters, although they are grossly polluted in the immediate vicinity of cities discharging sewage, there are still great areas sufficiently free from dangerous contamination to be suitable for shellfish culture. Consequently, local measures, namely, the installation of water-purification plants for safeguarding water supplies and the condemnation or local protection of the relatively small areas unfit for shellfish culture, have sufficed for immediate protection against the dangers of sewage pollution. The protection has not been perfect, but it has tended to become progressively better in recent years, as evidenced by the enormous decrease in prevalence of sewage-borne diseases.

Looking to the future, the conditions forseen and the remedies which must eventually be applied become more complex. With the growth of urban population, which still continues at a rapid rate, the sewage pollution of streams and coastal waterways must increase, and sooner or later, in the absence of anticipatory control, it seems inevitable that eventually the pollution will become such that water-purification plants of the highest attainable efficiency will not be able to deliver consistently safe effluents. To guard against this condition it will be necessary, perhaps in the near future, to limit the pollution of such inland streams as are necessary sources of water supply by such measure of sewage treatment as will suffice to keep the pollution at water-works intakes within definite bounds.

This, however, is an extraordinarily complex matter, not only from the administrative point of view, with which this presentation

is not concerned, but equally from the scientific viewpoint. It implies a concerted plan of control applied to an entire river system as a unit, a plan in which, presumably, each community will be required to limit its contribution of sewage pollution, not in the interests of its own citizens but for the protection of other communities downstream, usually including cities in several States. Safety demands that the measure of control exercised be adequate; justice demands that it be distributed among the communities on some definite and equitable principle; and economy demands that it be not more rigid than is actually necessary to insure the requisite protection to health.

The data needed for laying out any such comprehensive plan for controlling the pollution of an entire river system, with due regard for the considerations of safety, equitable distribution of the burden of control, and economy, are as follows:

*First.*—It is necessary to have established some quite definite and objective criterion of the quality which is to be maintained in the water supplies taken from the river as they are delivered to the consumers after artificial purification. This criterion or standard must be in terms of measurable characteristics, determinable by quantitative bacteriological or chemical examinations. It must be rigid enough to insure safety beyond any reasonable question, but not much more rigid than is actually necessary, lest it impose an excessive burden of costs.

*Second.*—It is necessary to have a fairly precise knowledge of the reliability and efficiency of such purification processes as can be applied at a reasonable cost to purification of the raw water available at the best practicable intake, for it is this efficiency, taken in connection with the standards set for the final effluent, that determines the upper limits of the pollution which may be tolerated at the intake.

*Third.*—It is necessary to know what proportionate part each of the sewered communities, situated at varying distances upstream, contributes to the pollution existing at any given intake, for otherwise it is impossible to estimate what effect elimination or reduction of the pollution from any single community will have in reducing the pollution in the intake zone. This, in turn, implies a fairly precise quantitative knowledge of the laws governing the processes of natural purification, and of how they may vary in different types of streams in relation to various climatic, seasonal, and hydrographic conditions, for it is only through such knowledge that these great protective processes which nature has provided may be used most effectively, and not to use them is to waste a natural resource of enormous economic importance.

Unfortunately, sanitary science has not furnished such full and precise knowledge as will be required on any of these points, especially



in regard to the natural agencies which tend so greatly and rapidly to reduce bacterial contamination and which constitute one of the main reliances for protection of health. Moreover, it seems unlikely that it will be possible to borrow this knowledge from the experience of other more densely populated countries, as the writer knows of no other country having similar problems in the control of stream pollution on a comparable scale and for a similar purpose; that will probably have to be studied successfully before a solution becomes necessary for some of the great river systems in the United States.

It is with these considerations in view that the Public Health Service, with the advice of its consultants, has consistently directed its investigations of stream pollution along the lines described, devoting a large part of its effort to such undertakings as the attempt to improve technical methods for laboratory determinations, to evaluate the efficiency of filtration plants under the adverse conditions of loading which may be anticipated in the future, and to add something to the present scanty knowledge of the laws of natural purification. Information of this kind, even if it may seem at this time to be more or less academic, will be essential to sound sanitary engineering practice in the future. Moreover, it appears to be preeminently the kind of information that a Federal agency should collect, because it is of general, not local, application, and because it involves such long-continued and laborious investigations as are not likely to be undertaken by private agencies, or even by State and municipal organizations, busy as they are with more immediate administrative work and with the necessary local studies incident to it.

However, while the Public Health Service is confident that this general policy is sound, it cannot, of course, feel equally confident that the sequence which is being followed in the development of these studies is the best possible or that the methods which are being applied are always the most effective. For guidance in such matters the service relies primarily on its special consultants, but, in addition, it always has sought and sincerely desires the criticism and constructive advice of the entire sanitary engineering profession. Therefore, the opportunity of outlining the purposes and present status of the work to the engineers of the country is especially appreciated, in the hope that they will further it by their criticism and advice.

### Appendix

#### BRIEF BIBLIOGRAPHY RELATING TO STUDIES OF STREAM POLLUTION, SEWAGE, AND WATER SUPPLIES

The following is a list of the publications of the United States Public Health Service relating to studies of stream pollution, sewage, and water supplies. The list includes only publications containing

original data, omitting numerous articles which present general discussions of various topics.<sup>3</sup>

Sewage Pollution of Interstate and International Waters, with Special Reference to the Spread of Typhoid Fever: I. Lake Erie and the Niagara River. By A. J. McLaughlin. *H. L. B. No. 77* (1912). 169 pp. 25 cents.

Sewage Pollution of Interstate and International Waters, etc.: II. Lake Superior and St. Marys River; III. Lake Michigan and the Straits of Mackinac; IV. Lake Huron, St. Clair River, Lake St. Clair, and the Detroit River; V. Lake Ontario and the St. Lawrence River. By A. J. McLaughlin. *H. L. B. No. 83* (1912). 296 pp. 30 cents.

Sewage Pollution of Interstate and International Waters, etc.: VI. The Missouri River from Sioux City to Its Mouth. By A. J. McLaughlin. *H. L. B. No. 89* (1913). 84 pp.

Investigation of the Pollution and Sanitary Condition of the Potomac Watershed, with Special Reference to Self-Purification and the Contamination of Shellfish in the Lower Potomac River. By Hugh S. Cumming, with Contributions by W. C. Purdy and Homer C. Ritter. *H. L. B. No. 104* (1916). 231 pp.

Investigation of the Pollution of Tidal Waters of Maryland and Virginia, with Special Reference to Shellfish-Bearing Areas. By Hugh S. Cumming. *H. L. B. No. 74* (1916). 199 pp. 10 cents.

\*Artificial Purification of Oysters. By William F. Wells. *P. H. R.*, July 14, 1916. Reprint No. 351. 4 pp. Out of print.

Investigation of the Pollution of Certain Tidal Waters of New Jersey, New York, and Delaware. By Hugh S. Cumming. *P. H. B. No. 86* (1917). 147 pp.

Stream Pollution: A Digest of Judicial Decisions and a Compilation of Legislation on the Subject. By Stanley D. Montgomery and Earle B. Phelps. *P. H. B. No. 87* (1917). 408 pp.

Treatment and Disposal of Creamery Wastes. By Earle B. Phelps. *P. H. R.*, December 6, 1918. Reprint No. 496. 5 pp.

Studies on the Treatment and Disposal of Industrial Wastes: I. The Treatment and Disposal of Strawboard Waste, by Harry B. Hommon; II. The Determination of Biochemical Oxygen Demand of Industrial Wastes and Sewage. By Emery J. Theriault and Harry B. Hommon. *P. H. B., No. 97* (1918). 56 pp.

Studies on the Treatment and Disposal of Industrial Wastes: III. The Purification of Tannery Wastes. By Harry B. Hommon. *P. H. B. No. 100* (1919). 133 pp.

Studies of Methods for the Treatment and Disposal of Sewage: Treatment of Sewage from Single Houses and Small Communities. By Leslie C. Frank and C. P. Rhynus. *P. H. B. No. 101* (1919). 117 pp. 25 cents.

A Further Study of the Excess Oxygen Method for the Determination of the Biochemical Oxygen Demand of Sewage and Industrial Wastes. By Emery J. Theriault. *P. H. R.*, May 7, 1921. Reprint No. 594. 11 pp.

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<sup>3</sup> The abbreviations used in the bibliography are as follows: "*H. L. B.*," *Hygienic Laboratory Bulletin*; "*P. H. B.*," *Public Health Bulletin*; and "*P. H. R.*," *Public Health Reports*, U. S. Public Health Service. The reprint number is given when the article appearing in *Public Health Reports* has been reprinted separately.

All but one of these publications are available at the present time either from the Public Health Service or from the Government Printing Office. Where the price is not given, the publication may be obtained free of charge from the Surgeon General, United States Public Health Service. Where the price is stated, remittance should be made to the SUPERINTENDENT OF DOCUMENTS, GOVERNMENT PRINTING OFFICE, WASHINGTON, D. C.

- Studies on the Treatment and Disposal of Industrial Wastes: IV. The Purification of Creamery Wastes. By Harry B. Hommon. *P. H. G. No. 109* (1921). 87 pp. 10 cents.
- Studies on the Treatment and Disposal of Industrial Wastes: V. The Purification of Tomato-Canning Wastes. By Harry B. Hommon. *P. H. B. No. 118* (1921). 58 pp. 10 cents.
- Hypochlorite Process of Oyster Purification (Experimental). By F. A. Carmelia. *P. H. R.*, April 22, 1921. Reprint No. 652. 10 pp.
- The Loading of Filter Plants. By H. W. Streeter. *P. H. R.*, March 24, 1922. Reprint No. 737. 13 pp.
- A Study of the Pollution and Natural Purification of the Ohio River: I. The Plankton and Related Organisms. By W. C. Purdy. *P. H. B. No. 131* (1923). 78 pp.
- Sewage Treatment in the United States: Report on the Study of Fifteen Representative Sewage Treatment Plants. By H. H. Wagenhals, E. J. Theriault, and H. B. Hommon. *P. H. B. No. 132* (1923). 260 pp.
- An Experimental Study of the Relation of Hydrogenion Concentrations to the Formation of Flocc in Alum Solutions. By Emery J. Theriault and William Mansfield Clark. *P. H. R.*, February 2, 1923. Reprint No. 813. 20 pp.
- Indicators for pH Control of Alum Dosage. By Barnett Cohen. *P. H. R.*, April 6, 1923. Reprint No. 828. 2 pp.
- On the Composition of the Precipitate from Partially Alkalinized Alum Solutions. By Lewis B. Miller. *P. H. R.*, August 31, 1923. Reprint No. 862. 10 pp.
- A Study of the Pollution and Natural Purification of the Ohio River: II. Report on Surveys and Laboratory Studies. By W. H. Frost, H. W. Streeter, J. K. Hoskins, and R. E. Tarbett. *P. H. B. No. 143* (1924). 343 pp.
- Absorption of Aluminium Hydrate Considered as a Solid Solution Phenomenon. By Lewis B. Miller. *P. H. R.*, June 20, 1924. Reprint No. 932. 14 pp.
- A Study of the Pollution and Natural Purification of the Ohio River: III. Factors Concerned in the Phenomena of Oxidation and Re-aeration. By H. W. Streeter and Earle B. Phelps. *P. H. B. No. 146* (1925). 75 pp.
- The Determination of Dissolved Oxygen by the Winkler Method. By Emery J. Theriault. *P. H. B. No. 151* (1925). 43 pp.
- Some Preliminary Observations from a Study of Water Purification Plants Along the Ohio River. By H. W. Streeter. *P. H. R.*, January 30, 1925. Reprint No. 987. 11 pp.
- A Study of the Effects of Anions Upon the Properties of "Alum Flocc." By Lewis B. Miller. *P. H. R.*, February 20, 1925. Reprint No. 992. 13 pp.

## MORTALITY SUMMARY FOR 78 LARGE CITIES

Number of deaths, death rates, and infant mortality in 78 large cities of the United States for 52 weeks of 1925 and comparison with 1924

[From the Weekly Health Index, Bureau of the Census, Department of Commerce]

City <sup>1</sup>	Total deaths	Death rate <sup>2</sup>	Deaths under 1 year	Provisional infant mortality rate, 1925 <sup>3</sup>	Infant mortality rate, 1924	Mortality data for calendar year 1924		
						Total deaths	Death rate	Deaths under 1 year
Total (69 cities)-----	369,142	12.6	45,384	70	72	359,467	12.5	47,049
Akron <sup>5</sup> -----	1,867	-----	291	60	61	1,537	-----	285
Albany-----	1,826	15.3	174	70	72	1,827	15.4	172
Atlanta <sup>5,6</sup> -----	3,862	-----	518	-----	-----	4,215	-----	593
Baltimore-----	11,623	14.6	1,382	77	85	11,310	14.4	1,479
Birmingham <sup>6</sup> -----	3,473	16.9	493	-----	-----	3,411	17.0	495
Boston-----	11,472	14.7	1,601	87	74	10,940	14.1	1,473
Bridgeport <sup>5</sup> -----	1,535	-----	165	54	56	1,537	-----	183
Buffalo-----	7,388	13.4	1,054	85	84	6,955	15.3	1,082
Cambridge-----	1,429	12.7	183	58	53	1,435	12.8	168
Camden-----	1,762	13.7	271	88	91	1,744	13.8	297
Canton-----	1,073	10.1	156	67	81	1,040	10.1	200
Chicago-----	34,200	11.4	4,474	76	77	32,915	11.2	4,522
Cincinnati-----	6,494	15.9	635	76	79	6,218	15.2	694
Cleveland-----	9,683	10.4	1,304	65	66	9,295	10.2	1,386
Columbus-----	3,896	14.0	432	76	65	3,532	13.2	371
Dallas <sup>6</sup> -----	2,643	13.7	448	-----	-----	2,462	13.1	415
Dayton-----	1,947	11.3	178	54	72	1,837	10.9	239
Denver <sup>6</sup> -----	4,116	14.7	465	-----	-----	4,122	14.9	517
Des Moines-----	1,580	10.6	130	42	57	1,505	10.4	177
Detroit-----	13,571	10.9	2,559	79	79	12,841	10.7	2,394
Duluth-----	1,061	9.6	131	59	64	1,045	9.6	154
El Paso <sup>6</sup> -----	1,705	16.3	343	-----	-----	1,782	17.7	375
Erie <sup>5</sup> -----	1,280	-----	167	61	67	1,271	-----	179
Fall River-----	1,572	13.0	298	83	92	1,600	13.2	332
Flint-----	991	7.6	216	69	69	951	7.7	227
Fort Worth <sup>5</sup> -----	1,535	10.1	191	-----	-----	1,296	8.8	165
Grand Rapids-----	1,760	11.5	246	69	53	1,530	10.3	175
Houston <sup>6</sup> -----	2,576	15.7	349	-----	-----	2,328	14.5	299
Indianapolis-----	4,931	13.8	472	68	77	4,597	13.1	565
Jersey City-----	3,663	11.7	464	63	77	3,821	12.2	563
Kansas City, Kans-----	1,645	13.3	223	78	94	1,530	12.6	247
Kansas City, Mo. <sup>6</sup> -----	5,053	13.8	590	-----	-----	4,825	13.4	599
Los Angeles <sup>5</sup> -----	11,428	-----	1,213	65	66	11,309	-----	1,250
Louisville <sup>5</sup> -----	4,198	16.2	442	73	71	3,947	15.3	441
Lowell-----	1,534	13.2	227	81	93	1,548	13.4	279
Lynn-----	1,149	11.0	135	65	72	1,159	11.2	149
Memphis <sup>5</sup> -----	3,441	19.8	434	-----	-----	3,506	20.4	456
Milwaukee-----	5,448	10.9	845	75	70	4,842	9.8	786
Minneapolis-----	4,902	11.6	566	61	54	4,659	11.2	522
Nashville <sup>5</sup> -----	2,310	17.0	295	-----	-----	2,371	19.2	314
New Bedford-----	1,359	10.3	241	81	79	1,350	10.2	250
New Haven-----	2,143	12.0	239	63	72	2,153	12.2	290
New Orleans <sup>5</sup> -----	7,935	19.2	995	-----	-----	7,600	18.6	846
New York-----	71,655	11.8	8,321	65	68	71,306	11.9	8,800
Bronx Borough-----	8,327	9.3	752	48	60	7,894	9.1	905
Brooklyn Borough-----	23,689	10.6	2,950	58	64	24,577	11.2	3,216
Manhattan Borough-----	31,293	13.9	3,746	80	74	30,594	13.5	3,698
Queens Borough-----	6,129	10.7	692	60	66	6,513	11.7	778
Richmond Borough-----	2,217	16.6	172	68	70	1,728	13.2	203
Newark, N. J.-----	5,271	11.7	787	68	65	4,982	11.2	740
Norfolk <sup>5</sup> -----	1,746	-----	235	81	82	1,741	-----	231
Oakland-----	2,560	10.1	232	52	66	2,737	11.2	237
Oklahoma City <sup>5,6</sup> -----	1,195	-----	140	-----	-----	1,167	-----	170
Omaha-----	2,794	13.2	310	62	67	2,650	12.7	342
Paterson-----	1,675	11.9	189	63	65	1,708	12.1	201
Philadelphia-----	26,028	13.2	3,080	77	75	25,263	12.9	3,105
Pittsburgh-----	9,366	14.9	1,254	80	92	9,720	15.5	1,440
Portland, Oreg-----	3,349	11.9	234	46	54	3,240	11.7	279
Providence-----	3,262	13.3	385	61	79	3,492	13.3	517

<sup>1</sup> Cities appearing in the summary are those shown for the 52 weeks in the Weekly Health Index.

<sup>2</sup> Allowance has been made for the extra day, which must be added to the 52 weeks to give a period of 265 days.

<sup>3</sup> Infant mortality rate is based upon deaths under 1 year as returned each week and estimated births, 1925.

<sup>4</sup> Infant mortality rate for the cities in the birth registration area, appearing in the summary.

<sup>5</sup> Mortality rates are omitted, pending the establishment of more satisfactory estimates of population.

<sup>6</sup> Cities with no infant mortality rate are not in the registration area for births.

*Number of deaths, death rates, and infant mortality in 78 large cities of the United States for 52 weeks of 1925 and comparison with 1924—Continued*

City	Total deaths	Death rate	Deaths under 1 year	Provisional infant mortality rate, 1925	Infant mortality rate, 1924	Mortality data for calendar year 1924		
						Total deaths	Death rate	Deaths under 1 year
Richmond.....	2,735	14.7	371	90	88	2,813	15.3	382
Rochester.....	3,505	11.5	417	64	59	3,623	11.1	385
St. Louis <sup>6</sup> .....	11,478	14.0	949			10,993	13.5	1,066
St. Paul.....	2,954	12.0	242	41	57	2,928	12.0	347
Salt Lake City.....	1,521	11.6	159	42	62	1,677	13.0	213
San Antonio <sup>6</sup> .....	3,020	15.3	556			2,995	15.6	612
San Diego.....	1,751	16.6	133	54	55	1,664	17.3	122
San Francisco.....	7,303	13.1	457	52	56	7,484	13.6	504
Schenectady.....	1,050	10.3	124	69	66	1,005	10.0	122
Seattle <sup>6</sup> .....	3,379		223	40	46	3,312		249
Somerville.....	1,113	10.9	145	73	56	981	9.8	110
Spokane.....	1,370	12.6	115	52	52	1,302	12.5	120
Springfield, Mass.....	1,757	11.5	219	61	69	1,691	11.4	241
Syracuse.....	2,269	11.9	278	67	69	2,259	12.0	288
Tacoma.....	1,178	11.3	91	41	57	1,145	11.1	127
Toledo.....	3,475	12.1	434	81	69	3,293	11.7	401
Trenton.....	2,025	15.4	259	83	93	1,872	14.4	294
Utica.....	1,472	13.8	168	71	81	1,572	14.9	197
Washington, D. C.....	7,032	14.2	761	83	76	6,553	13.5	705
Waterbury <sup>6</sup> .....	1,061		178	74	77	1,045		187
Wilmington, Del.....	1,440	11.8	202	91	91	1,407	11.7	209
Worcester.....	2,508	12.6	301	67	63	2,465	12.6	288
Yonkers.....	1,122	10.1	144	62	72	1,088	9.9	172
Youngstown.....	1,685	10.6	286	70	72	1,667	10.7	308

<sup>5</sup> Mortality rate, are omitted, pending the establishment of more satisfactory estimates of population.

<sup>6</sup> Cities with no infant mortality rate are not in the registration area for births.

## DEATHS DURING WEEK ENDED JANUARY 2, 1926

*Summary of information received by telegraph from industrial insurance companies for week ended January 2, 1926, and corresponding week of 1925. (From the Weekly Health Index, January 5, 1926, issued by the Bureau of the Census, Department of Commerce)*

	Week ended Jan. 2, 1926	Corresponding week, 1925
Policies in force.....	62, 530, 137	58, 136, 497
Number of death claims.....	11, 655	10, 615
Death claims per 1,000 policies in force, annual rate	9.7	9.5

Deaths from all causes in certain large cities of the United States during the week ended January 2, 1926, infant mortality, annual death rate, and comparison with corresponding week of 1925. (From the Weekly Health Index, January 5, 1926, issued by the Bureau of the Census, Department of Commerce)

City	Week ended Jan. 2, 1926		Annual death rate per 1,000 corresponding week, 1925	Deaths under 1 year		Infant mortality rate week ended Jan. 2, 1926 <sup>1</sup>
	Total deaths	Death rate <sup>1</sup>		Week ended Jan. 2, 1926	Corresponding week, 1925	
Total (67 cities)-----	8,046	14.4	14.3	831	1,010	<sup>2</sup> 67
Akron.....	35	-----	-----	8	6	89
Albany <sup>4</sup> .....	43	18.7	15.2	7	2	152
Atlanta.....	105	-----	-----	12	12	-----
White.....	64	-----	-----	6	-----	-----
Colored.....	41	( <sup>5</sup> )	-----	6	-----	-----
Baltimore <sup>4</sup> .....	255	16.7	16.6	27	21	81
White.....	191	-----	-----	20	-----	74
Colored.....	64	( <sup>5</sup> )	-----	7	-----	113
Birmingham.....	70	17.7	20.8	10	15	-----
White.....	29	-----	-----	3	-----	-----
Colored.....	41	( <sup>5</sup> )	-----	7	-----	-----
Boston.....	273	18.2	16.4	25	45	66
Bridgeport.....	36	-----	-----	5	8	80
Buffalo.....	137	12.9	12.8	16	12	65
Cambridge.....	26	12.1	11.1	1	5	17
Camden.....	39	15.8	17.8	1	8	16
Chicago <sup>4</sup> .....	749	13.0	13.6	96	106	85
Cincinnati.....	129	16.4	16.4	7	15	41
Cleveland.....	206	11.5	11.9	19	26	47
Columbus.....	89	16.6	16.8	10	10	92
Dallas.....	57	15.4	15.9	12	4	-----
White.....	38	-----	-----	9	-----	-----
Colored.....	19	( <sup>5</sup> )	-----	3	-----	-----
Dayton.....	42	12.7	11.2	7	1	110
Denver.....	91	16.9	15.4	11	11	-----
Des Moines.....	25	8.7	10.8	0	0	0
Detroit.....	327	13.7	11.2	46	61	79
Duluth.....	23	10.9	5.2	0	0	0
El Paso.....	31	15.4	14.4	2	4	-----
Erie.....	28	-----	-----	3	4	58
Fall River <sup>4</sup> .....	47	20.2	15.1	7	4	102
Flint.....	22	8.8	6.8	1	5	16
Fort Worth.....	31	10.6	10.3	2	6	-----
White.....	24	-----	-----	2	-----	-----
Colored.....	7	( <sup>5</sup> )	-----	0	-----	-----
Grand Rapids.....	34	11.5	12.2	6	3	94
Houston.....	65	20.5	19.0	7	7	-----
White.....	38	-----	-----	4	-----	-----
Colored.....	27	( <sup>5</sup> )	-----	3	-----	-----
Indianapolis.....	109	15.8	14.5	4	10	28
White.....	64	-----	-----	1	-----	8
Colored.....	15	( <sup>5</sup> )	-----	3	-----	164
Jersey City.....	88	14.6	14.7	21	14	149
Kansas City, Kans.....	35	14.7	19.4	6	4	119
White.....	29	-----	-----	2	-----	45
Colored.....	6	( <sup>5</sup> )	-----	4	-----	737
Kansas City, Mo.....	108	15.3	14.6	10	12	-----
Los Angeles.....	233	-----	-----	21	22	57
Louisville.....	103	20.7	18.5	10	10	84
White.....	84	-----	-----	9	-----	86
Colored.....	19	( <sup>5</sup> )	-----	1	-----	68
Lowell.....	37	16.6	10.7	4	5	69
Lynn.....	31	15.4	13.9	6	0	151
Memphis.....	54	16.1	24.5	8	5	-----
White.....	36	-----	-----	4	-----	-----
Colored.....	19	( <sup>5</sup> )	-----	4	-----	-----
Milwaukee.....	113	11.7	10.9	24	29	111
Minneapolis.....	97	11.9	13.6	12	10	64

<sup>1</sup> Annual rate per 1,000 population.

<sup>2</sup> Deaths under 1 year per 1,000 births—an annual rate based on deaths under 1 year for the week and estimated births for 1924. Cities left blank are not in the registration area for births.

<sup>3</sup> Data for 61 cities.

<sup>4</sup> Deaths for week ended Friday, Jan. 1, 1926.

<sup>5</sup> In the cities for which deaths are shown by color, the colored population in 1920 constituted the following percentage of the total population: Atlanta 31, Baltimore 15, Birmingham 39, Dallas 15, Fort Worth 14, Houston 25, Kansas City, Kans., 14, Louisville 17, Memphis 38, Nashville 30, New Orleans 26, Norfolk 38, Richmond 32, and Washington, D. C., 25.

*Deaths from all causes in certain large cities of the United States during the week ended January 2, 1926, infant mortality, annual death rate, and comparison with corresponding week of 1925. (From the Weekly Health Index, January 5, 1926, issued by the Bureau of the Census, Department of Commerce)—Continued*

City	Week ended Jan. 2, 1926		Annual death rate per 1,000 corresponding week, 1925	Deaths under 1 year		Infant mortality rate week ended Jan. 2, 1926
	Total deaths	Death rate		Week ended Jan. 2, 1926	Corresponding week, 1925	
Nashville <sup>4</sup> .....	61	23.3	18.0	7	8	-----
White.....	37			5		-----
Colored.....	24	( <sup>5</sup> )		2		-----
New Bedford.....	36	13.9	12.7	5	4	82
New Haven.....	50	14.6	13.1	3	3	39
New Orleans.....	176	22.1	22.8	14	25	-----
White.....	103			3		-----
Colored.....	73	( <sup>5</sup> )		11		-----
New York.....	1,488	12.7	13.5	153	188	61
Bronx Borough.....	180	10.4	10.1	15	22	52
Brooklyn Borough.....	490	11.4	11.8	56	61	58
Manhattan Borough.....	639	14.8	15.8	61	77	64
Queens Borough.....	139	12.6	14.6	17	23	79
Richmond Borough.....	40	15.6	21.0	4	5	71
Newark, N. J.....	145	16.7	13.0	22	24	100
Norfolk.....	45			3	4	87
White.....	26			0		0
Colored.....	19	( <sup>5</sup> )		2		98
Oakland.....	74	15.2	12.5	6	5	69
Oklahoma City.....	24			1	1	-----
Omaha.....	64	15.8	13.3	15	15	154
Paterson.....	47	17.3	15.5	4	3	67
Philadelphia.....	553	14.6	15.7	44	89	55
Pittsburgh.....	173	14.2	18.5	19	30	63
Portland, Oreg.....	75	13.8	16.4	2	8	20
Providence.....	92	19.6	15.5	10	3	79
Richmond.....	54	15.1	12.6	6	6	72
White.....	28			0		0
Colored.....	26	( <sup>5</sup> )		6		215
Rochester.....	76	12.0	12.9	7	5	56
St. Louis.....	261	16.6	15.6	18	18	-----
St. Paul.....	59	12.5	12.9	2	7	17
Salt Lake City <sup>4</sup> .....	42	16.7	14.7	2	6	30
San Antonio.....	71	18.7	17.4	10	13	-----
San Diego.....	54	26.6	20.2	6	4	140
San Francisco.....	165	15.4	16.6	2	9	12
Schenectady.....	24	12.2	9.2	0	1	0
Seattle.....	56			4	5	39
Somerville.....	18	9.2	12.3	3	6	79
Spokane.....	41	19.6	13.9	1	1	22
Springfield, Mass.....	39	13.3	9.2	3	3	44
Syracuse.....	43	11.7	12.8	3	11	38
Tacoma.....	32	16.0	11.5	2	2	47
Toledo.....	77	14.0	14.2	7	9	63
Trenton.....	41	16.2	18.6	3	11	49
Washington, D. C.....	170	17.8	14.8	15	8	84
White.....	104			6		49
Colored.....	66	( <sup>5</sup> )		9		165
Waterbury.....	18			5	3	107
Wilmington, Del.....	39	16.7	14.1	3	6	68
Worcester.....	61	16.0	14.9	3	8	34
Yonkers.....	26	12.1	9.3	3	0	66
Youngstown.....	34	11.1	6.5	3	1	37

<sup>4</sup> Deaths for week ended Friday, Jan. 1, 1926.

<sup>5</sup> In the cities for which deaths are shown by color, the colored population in 1920 constituted the following percentage of the total population: Atlanta 31, Baltimore 15, Birmingham 39, Dallas 15, Fort Worth 14, Houston 25, Kansas City, Kans., 14, Louisville 17, Memphis 38, Nashville 30, New Orleans 26, Norfolk 38, Richmond 32, and Washington, D. C., 25.

# PREVALENCE OF DISEASE

*No health department, State or local, can effectively prevent or control disease without knowledge of when, where, and under what conditions cases are occurring*

## UNITED STATES

### CURRENT WEEKLY STATE REPORTS

These reports are preliminary, and the figures are subject to change when later returns are received by the State health officers

#### Reports for Week Ended January 9, 1926

ALABAMA		CALIFORNIA	
	Cases		Cases
Cerebrospinal meningitis.....	2	Cerebrospinal meningitis:	
Chicken pox.....	52	Los Angeles.....	1
Dengue.....	1	Los Angeles County.....	1
Diphtheria.....	19	Oakland.....	1
Influenza.....	204	San Francisco.....	1
Malaria.....	7	Chicken pox.....	303
Measles.....	9	Diphtheria.....	83
Mumps.....	52	Influenza.....	355
Pellagra.....	13	Leprosy—Sonoma County.....	1
Pneumonia.....	186	Lethargic encephalitis—Redwood City.....	1
Poliomyelitis.....	2	Measles.....	44
Scarlet fever.....	17	Mumps.....	286
Smallpox.....	16	Poliomyelitis—Tulare County.....	1
Trachoma.....	6	Scarlet fever.....	165
Tuberculosis.....	38	Smallpox:	
Typhoid fever.....	9	Los Angeles.....	26
Whooping cough.....	20	Los Angeles County.....	10
		Oakland.....	12
		Sacramento.....	9
		Scattering.....	22
		Typhoid fever.....	11
		Whooping cough.....	102
ARIZONA		COLORADO	
	Cases		Cases
Chicken pox.....	11	Chicken pox.....	78
Diphtheria.....	18	Diphtheria.....	7
Mumps.....	12	Measles.....	12
Paratyphoid fever.....	2	Mumps.....	8
Scarlet fever.....	10	Pneumonia.....	7
Tuberculosis.....	14	Scarlet fever.....	31
Typhoid fever.....	3	Smallpox.....	1
Whooping cough.....	8	Tuberculosis.....	95
		Typhoid fever.....	3
		Whooping cough.....	12
ARKANSAS		CONNECTICUT	
	Cases		Cases
Chicken pox.....	17	Chicken pox.....	113
Diphtheria.....	5	Conjunctivitis (infectious).....	20
Hookworm disease.....	1	Diphtheria.....	49
Influenza.....	126	German measles.....	5
Malaria.....	25	Influenza.....	9
Mumps.....	5		
Pellagra.....	5		
Scarlet fever.....	6		
Smallpox.....	2		
Tuberculosis.....	5		
Typhoid fever.....	2		
Whooping cough.....	4		



CONNECTICUT—continued	
	Cases
Lethargic encephalitis.....	1
Measles.....	592
Mumps.....	9
Pneumonia (broncho).....	54
Pneumonia (lobar).....	81
Scarlet fever.....	71
Septic sore throat.....	2
Tuberculosis (all forms).....	54
Typhoid fever.....	3
Whooping cough.....	60

DELAWARE	
Chicken pox.....	3
Diphtheria.....	6
Influenza.....	5
Measles.....	29
Pneumonia.....	5
Scarlet fever.....	11
Tuberculosis.....	4
Whooping cough.....	2

FLORIDA	
Chicken pox.....	26
Diphtheria.....	19
Influenza.....	23
Malaria.....	28
Measles.....	4
Mumps.....	18
Pneumonia.....	14
Scarlet fever.....	15
Smallpox.....	27
Tuberculosis.....	9
Typhoid fever.....	12
Whooping cough.....	2

GEORGIA	
Chicken pox.....	12
Conjunctivitis (acute).....	1
Diphtheria.....	17
Hookworm disease.....	2
Influenza.....	138
Malaria.....	11
Measles.....	32
Mumps.....	15
Pellagra.....	1
Pneumonia.....	89
Scarlet fever.....	9
Septic sore throat.....	6
Smallpox.....	8
Tuberculosis.....	36
Typhoid fever.....	9
Typhus fever.....	1
Whooping cough.....	9

ILLINOIS	
Cerebrospinal meningitis:	
Cook County.....	2
Fulton County.....	1
Kane County.....	1
Livingston County.....	1
Diphtheria:	
Cook County.....	84
Peoria County.....	8
Scattering.....	28
Influenza.....	34

ILLINOIS—continued	
	Cases
Lethargic encephalitis.....	2
Measles.....	357
Pneumonia.....	495
Poliomyelitis:	
Adams County.....	1
Cook County.....	1
Fulton County.....	1
Jasper County.....	1
Richland County.....	1
Scarlet fever.....	462
Smallpox:	
Champaign County.....	3
Cook County.....	1
Kane County.....	12
Marshall County.....	6
McLean County.....	4
Saline County.....	8
Winnebago County.....	3
Scattering.....	10
Tuberculosis.....	172
Typhoid fever:	
Cook County.....	4
Franklin County.....	5
Scattering.....	21
Whooping cough.....	205

INDIANA	
Chicken pox.....	97
Diphtheria.....	58
Influenza.....	83
Measles.....	202
Pneumonia.....	33
Poliomyelitis.....	1
Scarlet fever.....	188
Smallpox.....	70
Trachoma.....	4
Tuberculosis.....	58
Typhoid fever.....	10
Whooping cough.....	46

KANSAS	
Cerebrospinal meningitis—Hutchinson.....	1
Chicken pox.....	212
Diphtheria.....	19
German measles.....	1
Influenza.....	20
Measles.....	36
Mumps.....	15
Pneumonia.....	78
Scarlet fever.....	86
Smallpox.....	1
Tuberculosis.....	105
Typhoid fever.....	3
Whooping cough.....	88

LOUISIANA	
Diphtheria.....	30
Dysentery.....	1
Influenza.....	28
Pneumonia.....	48
Scarlet fever.....	9
Smallpox.....	26
Tuberculosis.....	51
Typhoid fever.....	15
Whooping cough.....	7

MAINE		MINNESOTA	
	Cases		Cases
Chicken pox.....	22	Chicken pox.....	188
Diphtheria.....	7	Diphtheria.....	85
German measles.....	3	Influenza.....	1
Influenza.....	3	Measles.....	31
Measles.....	4	Pneumonia.....	3
Mumps.....	22	Poliomyelitis.....	1
Pneumonia.....	17	Scarlet fever.....	332
Poliomyelitis.....	2	Smallpox.....	3
Scarlet fever.....	31	Tuberculosis.....	34
Tuberculosis.....	8	Typhoid fever.....	4
Typhoid fever.....	3	Whooping cough.....	42
Vincent's angina.....	1		
Whooping cough.....	8	MISSISSIPPI	
		Diphtheria.....	13
MARYLAND <sup>1</sup>		Scarlet fever.....	8
Chicken pox.....	176	Smallpox.....	8
Diphtheria.....	26	Typhoid fever.....	3
Dysentery.....	1		
German measles.....	3	MISSOURI	
Influenza.....	82	Chicken pox.....	112
Lethargic encephalitis.....	1	Diphtheria.....	80
Malaria.....	1	Influenza.....	39
Measles.....	690	Measles.....	29
Mumps.....	147	Mumps.....	61
Pneumonia (broncho).....	83	Pneumonia.....	32
Pneumonia (lobar).....	86	Scarlet fever.....	210
Scarlet fever.....	43	Smallpox.....	17
Septic sore throat.....	1	Trachoma.....	1
Trachoma.....	1	Tuberculosis.....	51
Tuberculosis.....	68	Whooping cough.....	43
Typhoid fever.....	7		
Vincent's angina.....	1	MONTANA	
Whooping cough.....	72	Chicken pox.....	29
		Diphtheria.....	19
MASSACHUSETTS		Measles.....	1
Cerebrospinal meningitis.....	4	Mumps.....	90
Chicken pox.....	280	Scarlet fever.....	20
Conjunctivitis (suppurative).....	15	Smallpox.....	4
Diphtheria.....	100	Tuberculosis.....	3
German measles.....	59	Typhoid fever.....	5
Hookworm disease.....	1	Whooping cough.....	24
Influenza.....	17		
Lethargic encephalitis.....	1	NEBRASKA	
Measles.....	1,651	Chicken pox.....	32
Mumps.....	71	Diphtheria.....	11
Ophthalmia neonatorum.....	18	Influenza.....	5
Pellagra.....	1	Measles.....	3
Pneumonia (lobar).....	234	Mumps.....	5
Poliomyelitis.....	2	Pneumonia.....	2
Scarlet fever.....	295	Scarlet fever.....	63
Septic sore throat.....	1	Septic sore throat.....	2
Tetanus.....	1	Smallpox.....	20
Trachoma.....	2	Tuberculosis.....	1
Tuberculosis (pulmonary).....	123	Whooping cough.....	17
Tuberculosis (other forms).....	26		
Typhoid fever.....	5	NEW JERSEY	
Whooping cough.....	393	Anthrax.....	1
		Cerebrospinal meningitis.....	1
MICHIGAN		Chicken pox.....	504
Diphtheria.....	134	Diphtheria.....	151
Measles.....	1,139	Influenza.....	21
Pneumonia.....	291	Measles.....	1,121
Scarlet fever.....	386	Pneumonia.....	295
Smallpox.....	51	Poliomyelitis.....	1
Tuberculosis.....	45	Scarlet fever.....	215
Typhoid fever.....	13	Trachoma.....	1
Whooping cough.....	257	Typhoid fever.....	15
		Whooping cough.....	67

<sup>1</sup> Week ended Friday.

NEW YORK  
(Exclusive of New York City)

	Cases
Cerebrospinal meningitis.....	1
Diphtheria.....	109
Influenza.....	62
Lethargic encephalitis.....	1
Measles.....	948
Pneumonia.....	507
Poliomyelitis.....	3
Scarlet fever.....	281
Smallpox.....	3
Typhoid fever.....	50
Whooping cough.....	327

NORTH CAROLINA

Chicken pox.....	155
Diphtheria.....	53
German measles.....	3
Measles.....	54
Poliomyelitis.....	1
Scarlet fever.....	55
Septic sore throat.....	2
Smallpox.....	28
Typhoid fever.....	11
Whooping cough.....	56

OKLAHOMA

(Exclusive of Tulsa and Oklahoma City)

Chicken pox.....	31
Diphtheria.....	28
Influenza.....	281
Measles.....	4
Mumps.....	7
Pneumonia.....	158
Scarlet fever.....	26
Smallpox.....	8
Typhoid fever.....	12
Whooping cough.....	19

OREGON

Cerebrospinal meningitis.....	4
Chicken pox.....	35
Diphtheria.....	37
Influenza.....	7
Measles.....	7
Mumps.....	43
Pneumonia.....	28
Poliomyelitis.....	1
Scarlet fever.....	54
Smallpox:	
Albany.....	8
Bend.....	24
Josephine County.....	8
Scattering.....	17
Tuberculosis.....	11
Typhoid fever.....	6
Whooping cough.....	20

PENNSYLVANIA

Anthrax—Philadelphia.....	1
Cerebrospinal meningitis—Philadelphia.....	1
Chicken pox.....	730
Diphtheria:	
Erie.....	9
Philadelphia.....	49

PENNSYLVANIA—continued

Diphtheria—Continued	Cases
Pittsburgh.....	35
Scattering.....	94
German measles.....	14
Impetigo contagiosa.....	11
Lethargic encephalitis—Philadelphia.....	2
Measles.....	1,509
Mumps.....	131
Pellagra—Philadelphia.....	1
Pneumonia.....	100
Poliomyelitis:	
Pittsburgh.....	1
Scattering.....	2
Scabies.....	5
Scarlet fever.....	574
Smallpox—Rochester.....	1
Trachoma.....	2
Tuberculosis.....	102
Typhoid fever.....	27
Whooping cough.....	235

RHODE ISLAND

Chicken pox.....	4
Diphtheria.....	16
German measles.....	12
Influenza.....	8
Measles.....	423
Ophthalmia neonatorum.....	2
Paratyphoid fever—Providence.....	1
Pneumonia.....	1
Scarlet fever.....	10
Tuberculosis.....	7
Whooping cough.....	3

SOUTH DAKOTA

Chicken pox.....	2
Diphtheria.....	5
Measles.....	3
Mumps.....	2
Pneumonia.....	5
Poliomyelitis.....	4
Scarlet fever.....	54
Smallpox.....	9
Whooping cough.....	12

TENNESSEE

Chicken pox.....	38
Diphtheria.....	19
Influenza.....	107
Malaria.....	7
Measles.....	70
Mumps.....	2
Pellagra.....	4
Pneumonia.....	100
Scarlet fever.....	26
Smallpox.....	2
Tuberculosis.....	19
Typhoid fever.....	8
Whooping cough.....	6

TEXAS

Chicken pox.....	36
Diphtheria.....	61
Influenza.....	14
Measles.....	2

TEXAS—continued		WASHINGTON—continued	
	Cases		Cases
Mumps.....	8	Smallpox:	
Pellagra.....	2	Everett.....	14
Pneumonia.....	27	Tacoma.....	19
Scarlet fever.....	66	Scattering.....	25
Smallpox.....	7	Tuberculosis.....	5
Tetanus.....	1	Typhoid fever.....	1
Tuberculosis.....	17	Whooping cough.....	33
Typhoid fever.....	11		
Whooping cough.....	34	WEST VIRGINIA	
		Diphtheria.....	6
		Scarlet fever.....	7
UTAH			
Cerebrospinal meningitis—Salt Lake City.....	2	WISCONSIN	
Chicken pox.....	108	Milwaukee:	
Diphtheria.....	24	Chicken pox.....	167
Measles.....	1	Diphtheria.....	17
Mumps.....	29	German measles.....	5
Pneumonia.....	10	Influenza.....	1
Scarlet fever.....	9	Measles.....	1
Smallpox.....	6	Mumps.....	19
Tuberculosis.....	4	Pneumonia.....	19
Typhoid fever.....	2	Scarlet fever.....	23
Whooping cough.....	32	Tuberculosis.....	8
		Whooping cough.....	49
		Scattering:	
VERMONT		Chicken pox.....	158
Chicken pox.....	89	Diphtheria.....	19
Diphtheria.....	2	German measles.....	3
Measles.....	7	Influenza.....	41
Mumps.....	3	Measles.....	142
Scarlet fever.....	11	Mumps.....	96
Whooping cough.....	21	Pneumonia.....	12
		Poliomyelitis.....	1
		Scarlet fever.....	172
VIRGINIA		Smallpox.....	12
Smallpox.....	8	Tuberculosis.....	10
		Typhoid fever.....	2
WASHINGTON		Whooping cough.....	64
Cerebrospinal meningitis:			
Lincoln County.....	1	WYOMING	
Seattle.....	1	Chicken pox.....	7
Chicken pox.....	105	Diphtheria.....	2
Diphtheria.....	22	Measles.....	1
German measles.....	3	Mumps.....	1
Measles.....	15	Pneumonia.....	6
Mumps.....	132	Scarlet fever.....	6
Pneumonia.....	1	Smallpox—Albany.....	2
Scarlet fever.....	72	Whooping cough.....	17

## Reports for Week Ended January 2, 1926

DISTRICT OF COLUMBIA		NORTH DAKOTA—continued	
	Cases		Cases
Chicken pox.....	10	Scarlet fever.....	86
Diphtheria.....	15	Smallpox.....	4
Influenza.....	4	Whooping cough.....	7
Measles.....	9		
Pneumonia.....	47	SOUTH CAROLINA	
Scarlet fever.....	19	Dengue.....	3
Tuberculosis.....	17	Diphtheria.....	26
Whooping cough.....	4	Influenza.....	688
		Malaria.....	68
		Measles.....	6
NORTH DAKOTA		Poliomyelitis.....	1
Chicken pox.....	11	Scarlet fever.....	6
Diphtheria.....	5	Smallpox.....	5
German measles.....	1	Tuberculosis.....	35
Measles.....	4	Typhoid fever.....	15
Mumps.....	11	Whooping cough.....	40
Pneumonia.....	3		

## SUMMARY OF MONTHLY REPORTS FROM STATES

The following summary of monthly State reports is published weekly and covers only those States from which reports are received during the current week:

State	Cere- bro- spinal menin- gitis	Diph- theria	Influ- enza	Ma- laria	Mea- sles	Pel- lagra	Polio- mye- litis	Scarlet fever	Small- pox	Ty- phoid fever
<i>May, 1925</i>										
Tennessee.....	2	22	160	69	433	22	1	121	179	100
<i>July, 1925</i>										
Iowa.....		20			5		8	24	13	3
<i>November, 1925</i>										
Hawaii Territory...	1	29	3		44				1	2
<i>December, 1925</i>										
Arizona.....		11			3		1	49	0	15
Connecticut.....	4	185	38	2	787		2	276	0	39

## PLAGUE-ERADICATIVE MEASURES IN THE UNITED STATES

The following items were taken from the reports of plague-eradication measures from the cities named:

*Los Angeles, Calif.*

Week ended Dec. 26, 1925:

Number of rats trapped.....	2, 120
Number of rats found to be plague infected.....	0
Number of squirrels examined.....	439
Number of squirrels found to be plague infected.....	0
Number of mice trapped.....	2, 538
Number of mice found to be plague infected.....	0

Date of discovery of last plague-infected rodent, Nov. 6, 1925.

Date of last human case, Jan. 15, 1925.

*Oakland, Calif.*

(Including other East Bay communities)

Week ended Dec. 26, 1925:

Number of rats trapped.....	537
Number of rats found to be plague infected.....	0

Totals:

Number of rats trapped Jan. 1 to Dec. 26, 1925.....	79, 111
Number of rats found to be plague infected.....	21
Number of squirrels examined May 1 to Aug. 1, 1925.....	7, 277
Number of squirrels found to be plague infected.....	0
Number of mice trapped Jan. 1 to Dec. 26, 1925.....	29, 772

Date of discovery of last plague-infected rat, Mar. 4, 1925.

Date of last human case, Sept. 10, 1919.

## GENERAL CURRENT SUMMARY AND WEEKLY REPORTS FROM CITIES

*Diphtheria*.—For the week ended December 26, 1925, 36 States reported 1,101 cases of diphtheria. For the week ended December 27, 1924, the same States reported 1,391 cases of this disease. Ninety-seven cities, situated in all parts of the country and having an aggregate population of more than 28,500,000, reported 683 cases of diphtheria for the week ended December 26, 1925. Last year for the corresponding week they reported 812 cases. The estimated expectancy for these cities was 1,300 cases. The estimated expectancy is based on the experience of the last nine years, excluding epidemics.

*Measles*.—Thirty-three States reported 2,816 cases of measles for the week ended December 26, 1925, and 1,099 cases of this disease for the week ended December 27, 1924. Ninety-seven cities reported 2,385 cases of measles for the week this year, and 583 cases last year.

*Poliomyelitis*.—The health officers of 37 States reported 11 cases of poliomyelitis for the week ended December 26, 1925. The same States reported 36 cases for the week ended December 27, 1924.

*Scarlet fever*.—Scarlet fever was reported for the week as follows: 36 States—this year, 2,395 cases; last year, 2,762 cases. Ninety-seven cities—this year, 1,153 cases; last year, 1,341 cases; estimated expectancy, 1,027 cases.

*Smallpox*.—For the week ended December 26, 1925, 36 States reported 332 cases of smallpox. Last year for the corresponding week they reported 705 cases. Ninety-seven cities reported smallpox for the week as follows: 1925, 89 cases; 1924, 222 cases; estimated expectancy, 57 cases. Four deaths from smallpox were reported by these cities for the week this year—at Los Angeles, Calif.

*Typhoid fever*.—Two hundred and seventy-three cases of typhoid fever were reported for the week ended December 26, 1925, by 35 States. For the corresponding week of 1924, the same States reported 383 cases of this disease. Ninety-seven cities reported 51 cases of typhoid fever for the week this year and 193 cases for the corresponding week last year. The estimated expectancy for these cities was 76 cases.

*Influenza and pneumonia*.—Deaths from influenza and pneumonia were reported for the week by 91 cities, with a population of nearly 28,000,000, as follows: 1925, 820 deaths; 1924, 910.

## City reports for week ended December 26, 1925

The "estimated expectancy" given for diphtheria, poliomyelitis, scarlet fever, smallpox, and typhoid fever is the result of an attempt to ascertain from previous occurrence how many cases of the disease under consideration may be expected to occur during a certain week in the absence of epidemics. It is based on reports to the Public Health Service during the past nine years. It is in most instances the median number of cases reported in the corresponding week of the preceding years. When the reports include several epidemics or when for other reasons the median is unsatisfactory, the epidemic periods are excluded and the estimated expectancy is the mean number of cases reported for the week during nonepidemic years.

If reports have not been received for the full nine years, data are used for as many years as possible, but no year earlier than 1915 is included. In obtaining the estimated expectancy, the figures are smoothed when necessary to avoid abrupt deviations from the usual trend. For some of the diseases given in the table the available data were not sufficient to make it practicable to compute the estimated expectancy.

Division, State, and city	Population July 1, 1923, estimated	Chicken pox, cases re-ported	Diphtheria		Influenza		Meas-les, cases re-ported	Mumps, cases re-ported	Pneu-monia, deaths re-ported
			Cases, esti-mated expect-ancy	Cases re-ported	Cases re-ported	Deaths re-ported			
NEW ENGLAND									
Maine:									
Portland	73,129	1	2	0	0	0	0	2	2
New Hampshire:									
Concord	22,408	0	0	0	0	0	0	1	2
Nashua	29,234		1	4	0	0	0		1
Vermont:									
Barre	10,008	0	0	0	0	0	0	0	1
Burlington	23,613	0	1	0	0	0	0	0	0
Massachusetts:									
Boston	770,400	52	65	15	2	1	116	9	22
Fall River	120,912	1	5	4	2	0	14	0	4
Springfield	144,227	7	5	0	0	0	1	0	2
Worcester	191,927	13	4	5	0	0	160	0	12
Rhode Island:									
Pawtucket	68,799	2	3	1	0	0	5	0	3
Providence	242,378	0	15	2	0	0	247	0	10
Connecticut:									
Bridgeport	143,555	0	9	5	4	3	78	0	2
Hartford	138,036	4	9	5	0	1	30	0	4
New Haven	172,967	16	3	0	0	0	8	0	5
MIDDLE ATLANTIC									
New York:									
Buffalo	536,718	15	31	12	3	0	4	1	14
New York	5,927,625	131	218	119	19	10	585	14	151
Rochester	317,867	15	7	5	0	1	17	0	7
Syracuse	184,511	7	9	5	0	0	4	11	6
New Jersey:									
Camden	124,157	12	5	0	1	1	11	1	7
Newark	433,699	54	19	12	4	0	68	2	10
Trenton	127,390	3	5	0	1	1	0	0	2
Pennsylvania:									
Philadelphia	1,922,788	151	74	50	0	4	56	11	65
Pittsburgh	613,442	31	29	10	0	1	13	1	24
Reading	110,917	15	5	1	0	0	0	1	2
EAST NORTH CENTRAL									
Ohio:									
Cincinnati	406,312	19	16	5	1	2	0	0	13
Cleveland	888,519	46	49	41	2	2	446	3	15
Columbus	261,082	15	8	2	0	3	10	0	8
Toledo	268,338	20	14	7	0	1	19	0	6
Indiana:									
Fort Wayne	93,573		5						
Indianapolis	342,718	15	16	16	0	0	30	0	10
South Bend	79,709	3	2	1	0	0	0	0	0
Terre Haute	68,939	1	3	3	0	0	1	0	1
Illinois:									
Chicago	2,886,121	107	173	59	11	2	29	4	44
Peoria	79,675	20	2	0	0	0	0	3	5
Springfield	61,833	7	3	0	1	1	2	2	1
Michigan:									
Detroit	1,155,000	61	74	53	6	0	249	2	33
Flint	117,968	3	12	2	0	0	1	0	1
Grand Rapids	145,947	1	5	0	1	1	1	0	3

<sup>1</sup> Population Jan. 1, 1920.

## City reports for week ended December 26, 1925—Continued

Division, State, and city	Population July 1, 1923, estimated	Chicken pox, cases reported	Diphtheria		Influenza		Measles, cases reported	Mumps, cases reported	Pneumonia, deaths reported
			Cases, estimated expectancy	Cases reported	Cases reported	Deaths reported			
EAST NORTH CENTRAL—continued									
Wisconsin:									
Madison.....	42,519	5	2	0	0	0	1	0	0
Milwaukee.....	484,595	120	22	28	0	0	1	4	13
Racine.....	64,393	5	2	5	0	0	0	1	0
Superior.....	139,671	0	1	0	0	0	0	0	0
WEST NORTH CENTRAL									
Minnesota:									
Duluth.....	106,289	8	3	1	0	0	0	0	3
Minneapolis.....	409,125	45	21	16	0	0	1	2	10
St. Paul.....	241,891	22	18	13	0	1	2	0	8
Iowa:									
Davenport.....	61,262	2	1	2	0	0	0	0	0
Sioux City.....	79,662	4	3	0	0	0	0	0	0
Waterloo.....	39,667	1	0	0	0	2	0	0	0
Missouri:									
Kansas City.....	351,819	22	13	5	2	2	25	1	8
St. Joseph.....	78,232	1	4	0	0	0	1	0	0
St. Louis.....	808,853	29	64	50	0	0	2	1	0
North Dakota:									
Fargo.....	24,841	6	1	0	0	0	0	5	0
Grand Forks.....	14,547	1	0	0	0	0	0	0	0
South Dakota:									
Aberdeen.....	15,829	0	0	0	0	0	0	10	0
Sioux Falls.....	29,206	5	1	0	0	0	0	0	0
Nebraska:									
Lincoln.....	58,761	3	2	0	0	1	0	1	3
Omaha.....	204,382	3	6	2	0	0	0	0	11
Kansas:									
Topeka.....	52,555	20	2	1	0	0	0	0	2
Wichita.....	79,261	9	7	2	0	0	1	0	4
SOUTH ATLANTIC									
Delaware:									
Wilmington.....	117,728	3	3	7	0	0	0	0	5
Maryland:									
Baltimore.....	773,580	67	31	10	10	3	112	55	30
Cumberland.....	32,361	0	2	2	0	0	0	0	3
Frederick.....	11,301	0	1	0	0	0	0	0	0
District of Columbia:									
Washington.....	1,437,571	18	18	8	0	0	7	0	27
Virginia:									
Lynchburg.....	30,277	1	0	0	0	0	0	0	3
Norfolk.....	159,089	16	3	0	0	0	0	2	9
Richmond.....	181,044	0	9	4	0	2	0	2	3
Roanoke.....	55,502	3	3	2	0	0	0	2	3
West Virginia:									
Charleston.....	45,597	1	2	0	0	0	0	0	2
Wheeling.....	56,208	4	2	1	0	0	0	0	5
North Carolina:									
Raleigh.....	29,171	0	1	1	0	0	0	0	0
Wilmington.....	35,719	0	0	2	0	0	0	1	0
Winston-Salem.....	56,230	1	1	5	0	0	6	0	3
South Carolina:									
Charleston.....	71,245	0	1	0	0	1	0	0	1
Columbia.....	39,688	5	1	0	0	0	0	0	0
Greenville.....	25,789	1	1	0	0	0	0	0	2
Georgia:									
Atlanta.....	222,963	3	4	6	15	0	0	0	8
Brunswick.....	16,937	0	0	0	0	0	0	1	1
Savannah.....	89,448	2	2	0	12	3	0	0	2
Florida:									
St. Petersburg.....	24,403	0	1	0	0	0	0	0	3
Tampa.....	56,050	2	2	0	0	0	0	0	0

¹ Population Jan. 1, 1920.



## City reports for week ended December 26, 1925—Continued

Division, State, and city	Population July 1, 1923, estimated	Chicken pox, cases reported	Diphtheria		Influenza		Measles, cases reported	Mumps, cases reported	Pneumonia, deaths reported
			Cases, estimated expectancy	Cases reported	Cases reported	Deaths reported			
EAST SOUTH CENTRAL									
Kentucky:									
Covington.....	57,877	0	2	0	0	0	1	0	0
Louisville.....	257,671	0	9	3	2	0	5	0	11
Tennessee:									
Memphis.....	170,067	1	8	4	0	3	0	0	6
Nashville.....	121,128	3	4	1	0	1	16	0	2
Alabama:									
Birmingham.....	195,901	0	4	3	4	1	0	0	7
Mobile.....	63,858	6	1	1	1	1	0	0	1
Montgomery.....	45,333	1	0	2	0	0	0	3	0
WEST SOUTH CENTRAL									
Arkansas:									
Fort Smith.....	30,635	0	2	0	0	-----	1	0	-----
Little Rock.....	70,916	0	2	2	0	-----	0	0	-----
Louisiana:									
New Orleans.....	404,575	2	13	4	8	10	1	0	7
Shreveport.....	54,590	0	2	2	0	0	0	0	5
Oklahoma:									
Oklahoma City.....	101,150	0	2	4	12	0	0	0	3
Texas:									
Dallas.....	177,274	8	13	4	0	0	0	0	5
Galveston.....	46,877	0	1	1	0	0	0	0	5
Houston.....	154,970	-----	4	-----	-----	-----	-----	-----	-----
San Antonio.....	184,727	0	3	5	0	0	0	0	7
MOUNTAIN									
Montana:									
Billings.....	16,927	14	0	0	0	0	0	7	0
Great Falls.....	27,787	7	2	0	0	0	0	43	0
Helena.....	112,037	0	0	0	0	0	0	0	2
Missoula.....	112,668	0	0	4	0	0	0	0	0
Idaho:									
Boise.....	22,906	0	1	0	0	0	0	0	0
Colorado:									
Denver.....	272,031	20	12	3	0	3	3	1	14
Pueblo.....	43,519	0	4	6	0	0	0	0	1
New Mexico:									
Albuquerque.....	16,648	4	1	1	0	0	0	0	0
Arizona:									
Phoenix.....	33,899	0	-----	0	0	0	0	0	0
Utah:									
Salt Lake City.....	126,241	73	2	5	0	0	0	17	3
Nevada:									
Reno.....	12,429	0	0	0	0	0	0	0	2
PACIFIC									
Washington:									
Seattle.....	115,685	27	7	2	0	-----	4	17	-----
Spokane.....	104,873	21	5	1	0	-----	0	0	-----
Tacoma.....	101,731	-----	3	-----	-----	-----	-----	-----	-----
Oregon:									
Portland.....	273,621	2	7	18	0	0	0	6	0
California:									
Los Angeles.....	666,653	20	38	10	8	2	4	2	12
Sacramento.....	69,950	4	2	1	3	0	0	1	5
San Francisco.....	539,038	22	24	15	7	2	3	3	7

1 Population Jan. 1, 1920.

## City reports for week ended December 26, 1925—Continued

Division, State, and city	Scarlet fever		Smallpox			Tuber- culo- sis, deaths re- ported	Typhoid fever			Whoop- ing cough, cases re- ported	Deaths, all causes
	Cases, esti- mated expect- ancy	Cases re- ported	Cases, esti- mated expect- ancy	Cases re- ported	Deaths re- ported		Cases, esti- mated expect- ancy	Cases re- ported	Deaths re- ported		
NEW ENGLAND											
Maine:											
Portland.....	2	7	0	0	0	0	1	3	0	3	20
New Hampshire:											
Concord.....	0	0	0	0	0	0	0	0	0	0	10
Nashua.....	1	0	0	0	0	1	0	0	0	0	8
Vermont:											
Barre.....	2	0	0	0	0	0	0	0	0	0	2
Burlington.....	1	2	0	0	0	0	0	0	0	0	8
Massachusetts:											
Boston.....	39	46	0	0	0	13	2	1	0	43	214
Fall River.....	3	2	0	0	0	4	0	0	0	0	37
Springfield.....	8	9	0	0	0	2	0	0	0	0	35
Worcester.....	11	13	0	0	0	2	0	0	0	12	66
Rhode Island:											
Pawtucket.....	1	1	0	0	0	0	0	0	0	0	15
Providence.....	8	7	0	0	0	1	1	0	0	6	64
Connecticut:											
Bridgeport.....	6	11	0	0	0	1	0	0	0	2	41
Hartford.....	7	4	0	0	0	1	0	0	0	0	15
New Haven.....	8	0	0	0	0	6	1	0	0	7	43
MIDDLE ATLANTIC											
New York:											
Buffalo.....	23	24	0	0	0	7	1	4	1	15	112
New York.....	164	108	0	0	0	182	12	17	1	52	1,281
Rochester.....	12	7	0	0	0	5	1	0	0	10	76
Syracuse.....	12	3	0	0	0	2	0	0	0	25	50
New Jersey:											
Camden.....	3	13	1	0	0	2	1	0	0	2	37
Newark.....	16	15	0	0	0	8	2	0	0	15	101
Trenton.....	3	6	0	0	0	3	1	0	0	0	31
Pennsylvania:											
Philadelphia.....	57	61	0	0	0	37	4	0	0	23	521
Pittsburgh.....	32	47	0	0	0	9	1	1	0	9	160
Reading.....	1	5	0	0	0	3	1	0	0	2	38
EAST NORTH CENTRAL											
Ohio:											
Cincinnati.....	13	15	0	0	0	4	0	0	0	5	125
Cleveland.....	31	31	1	0	0	21	2	1	0	28	161
Columbus.....	10	22	1	6	0	4	0	0	0	10	78
Toledo.....	14	7	1	0	0	1	0	2	0	1	57
Indiana:											
Fort Wayne.....	2	—	0	—	—	—	0	—	—	—	—
Indianapolis.....	9	9	4	22	0	10	0	0	0	8	92
South Bend.....	4	3	1	5	0	0	0	0	0	2	8
Terre Haute.....	2	4	0	0	0	1	0	0	0	0	21
Illinois:											
Chicago.....	115	124	1	0	0	44	6	7	1	12	590
Peoria.....	6	6	0	3	0	0	0	0	0	6	20
Springfield.....	2	1	0	0	0	1	1	0	0	3	25
Michigan:											
Detroit.....	77	91	3	3	0	23	3	1	0	32	259
Flint.....	8	9	0	0	0	1	0	0	0	12	13
Grand Rapids.....	8	11	0	0	0	2	1	0	0	25	23
Wisconsin:											
Madison.....	2	4	0	0	0	0	0	0	0	4	5
Milwaukee.....	29	6	1	0	0	3	1	0	0	23	76
Racine.....	5	0	1	0	0	1	0	0	0	2	9
Superior.....	2	2	2	0	0	0	0	0	0	0	5
WEST NORTH CENTRAL											
Minnesota:											
Duluth.....	5	9	1	0	0	1	1	0	0	3	21
Minneapolis.....	40	51	6	0	0	5	1	0	0	0	79
St. Paul.....	19	32	4	0	0	5	1	0	1	3	63

¹ Pulmonary tuberculosis only.

## City reports for week ended December 28, 1925—Continued

Division, State, and city	Scarlet fever		Smallpox			Tuber- culosis, deaths re- ported	Typhoid fever			Whoop- ing cough, cases re- ported	Deaths, all causes
	Cases, esti- mated expect- ancy	Cases re- ported	Cases, esti- mated expect- ancy	Cases re- ported	Deaths re- ported		Cases, esti- mated expect- ancy	Cases re- ported	Deaths re- ported		
WEST NORTH CENTRAL—CON.											
Iowa:											
Davenport.....	1	2	0	0			0	0		0	
Sioux City.....	2	1	0	2			0	0		0	
Waterloo.....	3	5	0	0			0	0			
Missouri:											
Kansas City....	11	13	1	0	0	8	1	1	1	3	89
St. Joseph.....	2	2	0	0	0	0	0	0	0	0	22
St. Louis.....	31	87	1	0	0	7	2	1	0	4	227
North Dakota:											
Fargo.....	2	1	0	0	0	0	0	0	0	3	5
Grand Forks....	1		0				0				
South Dakota:											
Aberdeen.....	1	0	0	0			0	0		0	
Sioux Falls.....	2	2	0	0			0	0		0	
Nebraska:											
Lincoln.....	2	3	0	1	0	1	0	0	0	2	15
Omaha.....	6	9	3	8	0	2	1	0	0	0	81
Kansas:											
Topeka.....	1	1	0	0	0	1	0	0	0	0	12
Wichita.....	3	3	0	0	0	0	0	0	1	0	26
SOUTH ATLANTIC											
Delaware:											
Wilmington....	3	2	0	0	0	2	1	0	0	0	23
Maryland:											
Baltimore.....	23	26	0	0	0	16	4	1	0	17	204
Cumberland....	1	0	0	0	0	0	0	1	0	0	18
Frederick.....	0	0	0	0	0	0	0	0	0	0	3
District of Colum- bia:											
Washington....	21	18	0	0	0	11	4	1	0	10	164
Virginia:											
Lynchburg.....	0		0				0				
Norfolk.....	2	4	0	0	0	0	0	0	0	0	
Richmond.....	6	7	0	0	0	2	1	0	0	1	54
Rosnoke.....	1	0	0	0	0	0	1	0	0	0	12
West Virginia:											
Charleston.....	1	1	0	0	0	2	0	0	1	1	23
Wheeling.....	2	8	0	0	0	1	0	0	0	2	17
North Carolina:											
Raleigh.....	1	3	0	0	0	1	0	0	0	0	15
Wilmington....	0	1	0	0	0	0	0	0	0	0	8
Winston-Salem..	1	1	0	2	0	0	0	0	0	3	15
South Carolina:											
Charleston.....	1	0	0	0	0	3	1	0	0	0	26
Columbia.....	0	1	1	0	0	0	0	0	0	0	
Greenville.....	0	0	1	1	0	1	0	0	0	0	12
Georgia:											
Atlanta.....	4	5	1	2	0	2	1	3	0	0	59
Brunswick.....	0	0	0	0	0	0	0	0	0	0	3
Savannah.....	1	1	0	0	0	1	1	0	0	0	37
Florida:											
St. Petersburg..	0	0	0	0	0	0	1	0	0	0	13
Tampa.....	1		0				0				
EAST SOUTH CENTRAL											
Kentucky:											
Covington.....	2	3	0	0	0	0	0	0	0	0	6
Louisville.....	4	0	0	0	0	6	1	0	0	0	96
Tennessee:											
Memphis.....	2	21	0	0	0	6	0	0	0	0	53
Nashville.....	2	4	0	0	0	2	0	1	0	0	30
Alabama:											
Birmingham....	4	4	1	0	0	3	1	0	0	1	50
Mobile.....	1	0	0	0	0	0	0	0	0	0	16
Montgomery....	1	0	1	0	0	0	0	0	0	0	

## City reports for week ended December 26, 1925—Continued

Division, State, and city	Scarlet fever		Smallpox			Tuber- culo- sis, deaths re- ported	Typhoid fever			Whoop- ing cough, cases re- ported	Deaths, all causes
	Cases, esti- mated expect- ancy	Cases re- ported	Cases, esti- mated expect- ancy	Cases re- ported	Deaths re- ported		Cases, esti- mated expect- ancy	Cases re- ported	Deaths re- ported		
WEST SOUTH CENTRAL											
Arkansas:											
Fort Smith.....	1	0	1	0	-----	-----	0	0	-----	0	-----
Little Rock.....	2	2	1	0	-----	-----	0	0	-----	0	-----
Louisiana:											
New Orleans.....	5	5	0	0	0	13	3	1	0	1	152
Shreveport.....	0	1	1	0	0	1	0	0	0	0	23
Oklahoma:											
Oklahoma City.....	2	2	0	0	0	0	0	0	0	0	19
Texas:											
Dallas.....	3	11	0	0	0	1	1	1	0	10	40
Galveston.....	1	0	0	0	0	1	0	0	0	0	27
Houston.....	2	0	0	0	0	0	0	0	0	0	-----
San Antonio.....	1	0	0	0	0	4	0	0	0	0	47
MOUNTAIN											
Montana:											
Billings.....	1	8	0	0	0	0	0	1	1	2	7
Great Falls.....	1	1	0	0	0	0	1	0	0	7	8
Helena.....	1	0	0	0	0	0	0	0	0	0	8
Missoula.....	0	1	0	0	0	1	0	0	0	0	4
Idaho:											
Boise.....	1	0	0	1	0	0	0	0	0	1	2
Colorado:											
Denver.....	10	8	5	0	0	5	0	0	0	29	62
Pueblo.....	3	2	0	0	0	0	0	0	0	0	7
New Mexico:											
Albuquerque.....	0	3	0	0	0	3	0	0	0	7	10
Arizona:											
Phoenix.....	-----	3	-----	0	0	13	-----	0	0	0	24
Utah:											
Salt Lake City.....	4	3	2	0	0	0	0	1	0	5	31
Nevada:											
Reno.....	1	0	0	0	0	0	0	0	0	0	5
PACIFIC											
Washington:											
Seattle.....	7	18	2	2	-----	-----	0	0	-----	2	-----
Spokane.....	5	27	4	2	-----	-----	0	0	-----	0	-----
Tacoma.....	2	-----	1	-----	-----	-----	0	-----	-----	-----	-----
Oregon:											
Portland.....	7	19	6	4	0	1	0	0	0	0	-----
California:											
Los Angeles.....	18	8	2	28	4	14	3	2	1	0	183
Sacramento.....	2	3	1	5	0	1	0	0	0	0	19
San Francisco.....	12	8	1	0	0	11	2	1	0	-----	43

## City reports for week ended December 26, 1925—Continued

Division, State, and city	Cerebrospinal meningitis		Lethargic encephalitis		Poliagra		Polomyelitis (infantile paralysis)		
	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases, estimated expectancy	Cases	Deaths
NEW ENGLAND									
Massachusetts:									
Boston.....	0	0	1	2	0	0	0	0	0
MIDDLE ATLANTIC									
New York:									
Buffalo.....	0	0	0	0	0	0	0	2	0
New York.....	3	1	5	4	0	0	1	0	0
Pennsylvania:									
Philadelphia.....	0	0	3	1	1	1	0	0	0
Pittsburgh.....	0	0	0	0	0	0	0	1	0
EAST NORTH CENTRAL									
Ohio:									
Columbus.....	1	1	0	0	0	0	0	0	0
Michigan:									
Detroit.....	0	0	1	1	0	0	0	0	0
WEST NORTH CENTRAL									
Missouri:									
Kansas City.....	0	0	0	0	0	0	0	0	1
St. Louis.....	1	1	0	0	0	0	0	0	0
SOUTH ATLANTIC									
District of Columbia:									
Washington.....	0	0	0	0	1	1	0		0
North Carolina:									
Winston-Salem.....	0	0	0	0	1	1	0	0	0
South Carolina:									
Charleston.....	0	0	0	0	0	1	0	0	0
Greenville.....	0	0	0	0	0	1	0	0	0
Georgia:									
Atlanta.....	0	0	0	0	0	1	0	0	0
Savannah.....	0	0	0	0	0	1	0	0	0
EAST SOUTH CENTRAL									
Alabama:									
Birmingham.....	0	1	0	0	0	0	0	0	0
WEST SOUTH CENTRAL									
Louisiana:									
New Orleans.....	0	0	0	0	1	1	0	0	0
Oklahoma:									
Oklahoma City.....	0	0	0	0	0	1	0	0	0
Texas:									
Dallas.....	0	0	0	0	0	1	0	0	0
MOUNTAIN									
Utah:									
Salt Lake City.....	1	2	0	0	0	0	0	0	0
PACIFIC									
Oregon:									
Portland.....	1	0	0	0	0	0	0	0	0
California:									
San Francisco.....	0	1	0	0	0	0	0	0	0

The following table gives the rates per 100,000 population for 103 cities for the 10-week period ended December 26, 1925. The population figures used in computing the rates were estimated as of July 1, 1923, as this is the latest date for which estimates are available.

The 103 cities reporting cases had an estimated aggregate population of nearly 29,000,000, and the 96 cities reporting deaths had more than 28,000,000 population. The number of cities included in each group and the aggregate populations are shown in a separate table below:

*Summary of weekly reports from cities, October 18 to December 26, 1925—Annual rates per 100,000 population<sup>1</sup>*

## DIPHTHERIA CASE RATES

	Week ended—									
	Oct. 24	Oct. 31	Nov. 7	Nov. 14	Nov. 21	Nov. 28	Dec. 5	Dec. 12	Dec. 19	Dec. 26
103 cities.....	<sup>2</sup> 168	<sup>3</sup> 182	166	174	181	159	171	164	<sup>4</sup> 163	<sup>5</sup> 125
New England.....	<sup>6</sup> 97	137	97	127	144	104	124	107	137	92
Middle Atlantic.....	120	149	126	141	143	150	137	139	147	108
East North Central.....	189	195	187	194	189	162	172	166	161	<sup>7</sup> 159
West North Central.....	259	282	267	240	226	178	280	243	180	<sup>8</sup> 183
South Atlantic.....	<sup>9</sup> 268	228	211	252	289	221	221	205	205	<sup>10</sup> 102
East South Central.....	109	97	137	69	132	120	126	132	97	80
West South Central.....	102	264	199	213	176	181	278	185	<sup>4</sup> 253	<sup>11</sup> 97
Mountain.....	372	<sup>3</sup> 176	286	248	315	134	239	172	181	172
Pacific.....	142	157	148	145	186	165	128	200	186	<sup>12</sup> 89

## MEASLES CASE RATES

	<sup>2</sup> 93	<sup>3</sup> 105	154	174	229	212	353	441	<sup>4</sup> 531	<sup>5</sup> 436
103 cities.....										
New England.....	<sup>6</sup> 599	604	852	937	1,130	827	1,583	2,025	2,159	1,637
Middle Atlantic.....	37	110	169	171	256	239	339	453	520	384
East North Central.....	47	57	74	88	103	124	255	307	503	<sup>7</sup> 571
West North Central.....	10	12	15	10	15	31	19	25	37	<sup>8</sup> 71
South Atlantic.....	<sup>9</sup> 40	59	154	232	289	353	552	576	609	<sup>10</sup> 265
East South Central.....	40	17	17	17	51	34	40	23	86	126
West South Central.....	14	5	9	9	5	5	5	5	<sup>4</sup> 10	<sup>11</sup> 11
Mountain.....	29	<sup>3</sup> 20	33	47	29	10	10	38	29	29
Pacific.....	12	15	17	20	32	26	58	55	81	<sup>12</sup> 34

## SCARLET FEVER CASE RATES

	<sup>2</sup> 132	<sup>3</sup> 160	170	191	175	205	220	231	<sup>4</sup> 240	<sup>5</sup> 211
103 cities.....										
New England.....	<sup>6</sup> 130	201	271	246	209	214	224	194	199	248
Middle Atlantic.....	96	106	111	142	144	149	166	173	190	146
East North Central.....	142	194	167	189	196	220	273	302	300	<sup>7</sup> 246
West North Central.....	286	305	384	400	421	454	433	493	471	<sup>8</sup> 460
South Atlantic.....	<sup>9</sup> 134	193	185	172	123	144	127	102	164	<sup>10</sup> 166
East South Central.....	132	80	109	183	137	183	177	120	126	183
West South Central.....	42	42	102	121	98	139	111	148	<sup>4</sup> 93	<sup>11</sup> 102
Mountain.....	115	<sup>3</sup> 195	172	181	162	172	248	162	286	219
Pacific.....	133	148	162	206	197	249	226	194	258	<sup>12</sup> 197

<sup>1</sup> The figures given in this table are rates per 100,000 population, annual basis, and not the number of cases reported. Populations used are estimated as of July 1, 1923.

<sup>2</sup> Two cities not included.

<sup>3</sup> Helena, Mont., not included.

<sup>4</sup> Shreveport, La., not included.

<sup>5</sup> Fort Wayne, Ind., Grand Forks, N. Dak., Lynchburg, Va., Tampa, Fla., Houston, Tex., and Tacoma, Wash., not included.

<sup>6</sup> Barre, Vt., not included.

<sup>7</sup> Fort Wayne, Ind., not included.

<sup>8</sup> Grand Forks, N. Dak., not included.

<sup>9</sup> Winston-Salem, N. C., not included.

<sup>10</sup> Lynchburg, Va., and Tampa, Fla., not included.

<sup>11</sup> Houston, Tex., not included.

<sup>12</sup> Tacoma, Wash., not included.

Summary of weekly reports from cities, October 18 to December 26, 1925—Annual rates per 100,000 population—Continued

## SMALLPOX CASE RATES

	Week ended—									
	Oct. 24	Oct. 31	Nov. 7	Nov. 14	Nov. 21	Nov. 28	Dec. 5	Dec. 12	Dec. 19	Dec. 26
103 cities.....	<sup>2</sup> 7	<sup>3</sup> 10	10	8	17	16	13	21	<sup>4</sup> 21	<sup>5</sup> 16
New England.....	<sup>6</sup> 7	0	0	0	0	0	0	0	0	0
Middle Atlantic.....	0	0	0	0	0	0	0	0	1	0
East North Central.....	4	17	12	13	32	32	14	34	27	<sup>7</sup> 27
West North Central.....	4	27	12	4	17	10	19	19	37	<sup>8</sup> 21
South Atlantic.....	<sup>9</sup> 0	6	12	6	21	2	4	8	12	<sup>10</sup> 11
East South Central.....	6	6	29	34	11	11	11	6	11	0
West South Central.....	0	0	0	0	0	9	14	9	<sup>4</sup> 24	<sup>11</sup> 0
Mountain.....	10	<sup>3</sup> 10	19	19	19	10	0	105	38	10
Pacific.....	78	46	49	44	78	99	110	131	119	<sup>12</sup> 114

## TYPHOID FEVER CASE RATES

103 cities.....	<sup>2</sup> 33	<sup>3</sup> 26	28	12	17	14	20	20	<sup>4</sup> 16	<sup>5</sup> 9
New England.....	<sup>6</sup> 15	17	22	2	32	17	22	22	10	10
Middle Atlantic.....	25	21	12	5	20	14	26	25	17	11
East North Central.....	9	16	19	9	3	8	12	14	7	7
West North Central.....	33	19	31	17	15	8	10	12	15	<sup>6</sup> 4
South Atlantic.....	<sup>7</sup> 78	27	64	10	31	29	21	25	18	<sup>10</sup> 13
East South Central.....	160	109	183	46	34	23	57	29	29	6
West South Central.....	83	83	51	60	32	32	42	32	<sup>4</sup> 29	<sup>11</sup> 11
Mountain.....	67	<sup>3</sup> 88	38	10	19	19	0	19	10	19
Pacific.....	32	20	9	3	6	15	15	15	17	<sup>12</sup> 9

## INFLUENZA DEATH RATES

96 cities.....	<sup>2</sup> 8	<sup>3</sup> 11	13	12	8	9	12	13	<sup>4</sup> 14	<sup>5</sup> 13
New England.....	<sup>6</sup> 2	12	5	7	2	12	10	10	15	12
Middle Atlantic.....	8	10	14	14	6	8	10	12	8	9
East North Central.....	9	7	12	10	6	5	7	12	18	<sup>7</sup> 8
West North Central.....	7	11	7	13	2	2	7	7	4	7
South Atlantic.....	<sup>2</sup> 2	6	18	2	14	10	18	8	10	<sup>10</sup> 19
East South Central.....	6	29	40	29	46	29	46	61	57	34
West South Central.....	20	41	15	31	10	36	41	46	<sup>4</sup> 38	<sup>11</sup> 60
Mountain.....	38	<sup>3</sup> 10	10	0	19	10	19	19	0	29
Pacific.....	4	<sup>12</sup> 4	15	4	19	4	4	4	19	<sup>12</sup> 16

## PNEUMONIA DEATH RATES

96 cities.....	<sup>2</sup> 96	<sup>3</sup> 122	141	138	151	130	149	134	<sup>4</sup> 153	<sup>5</sup> 140
New England.....	<sup>6</sup> 87	112	139	137	144	161	186	137	164	171
Middle Atlantic.....	104	137	153	144	160	145	161	132	148	146
East North Central.....	83	119	125	137	146	100	149	121	139	<sup>7</sup> 105
West North Central.....	63	99	88	83	103	83	55	85	136	101
South Atlantic.....	<sup>9</sup> 124	134	207	162	156	144	170	135	213	<sup>10</sup> 221
East South Central.....	132	114	166	177	240	194	143	200	234	154
West South Central.....	117	138	163	122	163	158	163	219	<sup>4</sup> 194	<sup>11</sup> 174
Mountain.....	115	<sup>3</sup> 78	105	181	229	162	162	181	124	210
Pacific.....	79	<sup>12</sup> 53	95	114	91	102	102	79	102	<sup>12</sup> 98

<sup>2</sup> Two cities not included.

<sup>3</sup> Helena, Mont., not included.

<sup>4</sup> Shreveport, La., not included.

<sup>5</sup> Fort Wayne, Ind., Grand Forks, N. Dak., Lynchburg, Va., Tampa, Fla., Houston, Tex., and Tacoma, Wash., not included.

<sup>6</sup> Barre, Vt., not included.

<sup>7</sup> Fort Wayne, Ind., not included.

<sup>8</sup> Grand Forks, N. Dak., not included.

<sup>9</sup> Winston-Salem, N. C., not included.

<sup>10</sup> Lynchburg, Va., and Tampa, Fla., not included.

<sup>11</sup> Houston, Tex., not included.

<sup>12</sup> Tacoma, Wash., not included.

*Number of cities included in summary of weekly reports and aggregate population of cities in each group, estimated as of July 1, 1923*

Group of cities	Number of cities reporting cases	Number of cities reporting deaths	Aggregate population of cities reporting cases	Aggregate population of cities reporting deaths
Total.....	103	96	23,977,311	23,321,626
New England.....	12	12	2,098,746	2,098,746
Middle Atlantic.....	10	10	10,304,114	10,304,114
East North Central.....	16	16	7,135,899	7,135,899
West North Central.....	14	11	2,515,330	2,381,454
South Atlantic.....	21	21	2,542,498	2,542,498
East South Central.....	7	7	911,885	911,885
West South Central.....	8	6	1,124,564	1,023,013
Mountain.....	9	9	546,445	546,445
Pacific.....	6	4	1,797,830	1,377,572



# FOREIGN AND INSULAR

## THE FAR EAST

*Report for week ended December 12, 1925.*—The following report for the week ended December 12, 1925, was transmitted by the far eastern bureau of the health section of the League of Nations' secretariat, located at Singapore, to the headquarters at Geneva:

Port	Plague		Cholera		Smallpox	
	Cases	Deaths	Cases	Deaths	Cases	Deaths
Bombay.....		1		0	7	6
Madras.....		0		13	6	2
Rangoon.....		1		0	2	1
Karachi.....		0		0	0	0
Negapatam.....		0		0	0	0
Colombo.....	0	0	0	0	1	0
Basra.....	0	0	0	0	5	5
Singapore.....	0	0	0	0	0	0
Port Swettenham.....	0	0	0	0	0	0
Penang.....	0	0	0	0	0	0
Batavia.....	0	0	0	0	0	0
Soerabaya.....	0	0	0	0	1	1
Samarang.....	0	0	0	0	0	0
Belawan Deli.....	0	0	0	0	0	0
Pedang (Sumatra).....	0	0	0	0	0	0
Sabang (Rhio).....	0	0	0	0	0	0
Macassar.....	3	2	0	0	0	0
Pontianak (Borneo).....	0	0	0	0	0	0
Sandakan (North Borneo).....	0	0	0	0	0	0
Kuching (Sarawak).....	0	0	0	0	1	0
Manila.....	0	0	0	0	0	0
Bangkok.....	0	0	93	62	0	0
Saigon and Cholon.....	0	0	0	0	0	0
Hongkong.....	0	0	0	0	0	0
Shanghai.....	0	0	0	0		4
Amoy.....	0	0	0	0	0	0
Nagasaki.....	0	0	0	0	0	0
Yokohama.....	0	0	0	0	0	0
Simonoseki.....	0	0	0	0	0	0
Moji.....	0	0	0	0	0	0
Kobe.....	0	0	0	0	0	0
Osaka.....	0	0	0	0	0	0
Keelung.....	0	0	0	0	0	0
Fusan.....	0	0	0	0	0	0
Dairen.....	0	0	0	0	1	0
Adelaide.....	0	0	0	0	0	0
Brisbane.....	0	0	0	0	0	0
Fremantle.....	0	0	0	0	0	0
Melbourne.....	0	0	0	0	0	0
Sydney.....	0	0	0	0	0	0
Rockhampton.....	0	0	0	0	0	0
Townsville.....	0	0	0	0	0	0
Port Darwin.....	0	0	0	0	0	0
Broome.....	0	0	0	0	0	0
Port Moresby.....	0	0	0	0	0	0
Honolulu.....	0	0	0	0	0	0
Suez.....	0	0	0	0	0	0
Alexandria.....	0	0	0	0	0	0
Port Said.....	0	0	0	0	0	0
Mombassa (Kenya).....	0	0	0	0	0	0
Zanzibar.....	0	0	0	0	0	0
Massowah.....	0	0	0	0	0	0
Djibuti.....	0	0	0	0	0	0
Lourenco-Marques.....	0	0	0	0	0	0
Durban.....	0	0	0	0	0	0
East London.....	0	0	0	0	0	0
Port Elizabeth.....	0	0	0	0	0	0
Cape Town.....	0	0	0	0	0	0
Port Louis (Mauritius).....	7	6	0	0	0	0
Seychelles.....	0	0	0	0	0	0

## CUBA

*Malaria—Santiago.*—During the period November 29 to December 19, 1925, 119 cases of malaria with 7 deaths were reported at Santiago de Cuba. Under date of December 22, 1925, 197 cases of malaria were reported present.

## ECUADOR

*Plague—Guayaquil—December 1-15, 1925.*—During the period December 1 to 15, 1925, five cases of plague with two deaths were reported at Guayaquil, Ecuador. During the same period, of 11,958 rats taken at Guayaquil, 71 were found plague infected.

## MADAGASCAR

*Plague—September 16-30, 1925.*—During the period September 16 to 30, 1925, 46 cases of plague with 43 deaths were reported in the island of Madagascar. Of these the urban occurrence was reported as follows: Miarinarivo, Province of Itasy, 3 cases (bubonic, 2; pneumonic, 1); Tananarive, 2 cases, 1 bubonic and 1 septicemic; Tamatave (port), 3 cases (bubonic).

*October 1-31, 1925.*—During the month of October, 1925, 177 cases of plague with 161 deaths were reported in the island of Madagascar. The urban occurrence was reported as follows: Miarinarivo, Province of Itasy, cases 17, deaths 17 (bubonic, pneumonic, and septicemic); Tananarive, cases 7, deaths 6 (bubonic, pneumonic, and septicemic). For distribution according to Provinces, see page 109.

## MALTA

*Communicable diseases—November, 1925.*—During the month of November, 1925, communicable diseases were notified in the island of Malta as follows:

Disease	Cases	Disease	Cases
Broncho-pneumonia.....	3	Measles.....	7
Chicken pox.....	10	Pneumonia.....	1
Diphtheria.....	11	Polio-myelitis.....	1
Influenza.....	2	Smallpox.....	14
Malta (undulant) fever.....	52	Typhoid fever.....	51

Population, civil (estimated), 223,088.

## MAURITIUS

*Plague—September, 1925.*—During the month of September, 1925, a fatal case of plague was reported in the island of Mauritius.

## UNION OF SOUTH AFRICA

*Plague—Typhus fever—October, 1925.*—Plague and typhus fever have been reported in the Union of South Africa as follows: *Plague*—Cape Province, week ended November 21, 1925, one case occurring in a native on a farm in the Steynsburg District. *Typhus fever*—Month of October, 1925, 88 cases with 7 deaths occurring among the colored population and 7 cases in the European population. For distribution of occurrence according to locality see pages 109, 110.

## CHOLERA, PLAGUE, SMALLPOX, AND TYPHUS FEVER

The reports contained in the following tables must not be considered as complete or final as regards either the lists of countries included or the figures for the particular countries for which reports are given.

Reports Received During Week Ended January 15, 1926 <sup>1</sup>

## CHOLERA

Place	Date	Cases	Deaths	Remarks
India:				
Calcutta.....	Nov. 15-21.....	22	22	
Madras.....	Nov. 22-28.....	1	1	
Philippine Islands:				
Manila.....	Nov. 9-22.....	4	3	
Provinces—				
Bulacan.....	Oct. 18-Nov. 7.....	92	64	As currently reported; subject to later correction.
Pampanga.....	Nov. 1-7.....	1	1	
Rizal.....	Sept. 27-Oct. 24.....	70	21	
Siam:				
Bangkok.....	Nov. 8-14.....	23	17	Do.

## PLAGUE

Ceylon.....	Nov. 15-21.....	2	2	
China:				
Nanking.....	Nov. 15-Dec. 5.....			Prevalent.
Ecuador:				
Guayaquil.....	Dec. 1-15.....	5	2	Rats taken, 11,958; found infected, 71.
India:				
Madras Presidency.....	Oct. 25-31.....	42	25	
Java:				
Batavia.....	Nov. 14-20.....	107	100	Province.
Sourabaya.....	Oct. 25-Nov. 7.....	8	7	
Madagascar:				
Fort Dauphin Province.....	Sept. 16-30.....	2	1	Sept. 16-30, 1925: Cases, 46; deaths, 43.
Itasy Province.....	do.....	3	3	Bubonic.
				Bubonic, 2; pneumonic, 1. At Miarinarivo.
Moramanga Province.....	do.....	1	1	Bubonic.
Tamatave (port).....	do.....	3	2	Do.
Madagascar:				
Fort Dauphin.....	Oct. 1-15.....	3	1	October, 1925: Cases, 177; deaths, 161. Bubonic, pneumonic, and septicemic.
Itasy Province.....	Oct. 1-31.....	17	17	At Miarinarivo.
Moramanga Province.....	do.....	16	16	
Tamatave (port).....	Oct. 16-31.....	4	4	
Tananarive Province.....	Oct. 1-31.....	137	123	
Mauritius.....				September, 1925: One fatal case.
Union of South Africa:				
Cape Province—				
Steynsburg District.....	Nov. 15-21.....	1		Native. On farm.

<sup>1</sup> From medical officers of the Public Health Service, American consuls, and other sources.

## CHOLERA, PLAGUE, SMALLPOX, AND TYPHUS FEVER—Continued

Reports Received During Week Ended January 15, 1926—Continued

## SMALLPOX

Place	Date	Cases	Deaths	Remarks
Arabia:				
Aden.....	Nov. 29-Dec. 5....	1	-----	Imported.
Brazil:				
Rio de Janeiro.....	Nov. 15-28.....	63	32	
British South Africa:				
Southern Rhodesia.....	Nov. 13-19.....	1	-----	Native.
Canada:				
Alberta—				
Calgary.....	Dec. 13-19.....	1	-----	From Drumbheller, vicinity of Calgary.
China:				
Amoy.....	Oct. 25-Nov. 21.....	-----	-----	Present.
Antung.....	Dec. 7-13.....	1	-----	
Chungking.....	Nov. 15-21.....	-----	-----	Do.
Manchuria:				
An-shan.....	Dec. 6-12.....	1	-----	
Dairen.....	Oct. 26-Nov. 15.....	2	3	
Mukden.....	do.....	1	-----	
Tieh-ling.....	do.....	2	-----	
Nanking.....	Nov. 21-Dec. 5.....	-----	-----	Do.
Shaanghai.....	Nov. 15-21.....	2	1	
Swatow.....	Nov. 22-Dec. 5.....	-----	-----	Prevalent.
Great Britain:				
England and Wales.....	Nov. 15-Dec. 12.....	432	-----	
Hull.....	Dec. 6-12.....	6	-----	
India:				
Bombay.....	Nov. 15-21.....	4	1	
Calcutta.....	do.....	9	5	
Madras.....	Nov. 22-28.....	2	-----	
Japan:				
Taiwan.....	Nov. 11-20.....	1	-----	
Malta.....	Nov., 1925.....	14	-----	
Mexico:				
Aguascalientes.....	Dec. 20-26.....	-----	2	
Persia:				
Teheran.....	July 23-Aug. 23.....	-----	68	
Portugal:				
Lisbon.....	Nov. 16-Dec. 6.....	-----	31	

## TYPHUS FEVER

China:				
Antung.....	Nov. 29-Dec. 6....	4	1	
Mexico:				
Guadalajara.....	Dec. 22-23.....	-----	1	
Mexico City.....	Dec. 6-12.....	12	-----	Including municipalities in Federal district.
Pakistan:				
Safed.....	Nov. 24-30.....	1	-----	
Tel-Aviv.....	do.....	1	-----	
Union of South Africa:				
Cape Province.....				October, 1925: Cases, 88; deaths, 7 (colored); cases, 7 (European population).
Natal.....				Oct. 1-31, 1925: Cases, 63; deaths, 5 (colored).
Orange Free State.....				Oct. 1-31, 1925: One case (colored).
Transvaal.....				Oct. 1-31, 1925: Cases, 23; 1 death (colored).
				Oct. 1-31, 1925: One case, 1 death.

## CHOLERA, PLAGUE, SMALLPOX, AND TYPHUS FEVER—Continued

Reports Received from December 26, 1925, to January 8, 1926<sup>1</sup>

## CHOLERA

Place	Date	Cases	Deaths	Remarks
India.....	.....	.....	.....	Oct. 18-31, 1925: Cases, 3,027; deaths, 1,785.
Calcutta.....	Nov. 1-14.....	38	25	
Madras.....	Nov. 15-21.....	2	2	
Rangoon.....	Nov. 8-14.....	2	2	
Japan.....	Aug. 30-Sept. 19.....	121	.....	
Russia.....	May-June.....	7	.....	
Siam:				
Bangkok.....	Oct. 4-31.....	60	30	Infection stated to have been imported on vessel.
Do.....	Nov. 1-7.....	25	31	
On vessel.....				
Steamship.....	Oct. 3.....	9	.....	Arrived at Bangkok, Siam; 9 cases in coolie passengers.

## PLAGUE

Brazil:				
Bahia.....	Nov. 8-14.....	2	.....	
Santos.....	Dec. 8-21.....	.....	2	
Ecuador:				
Guayaquil.....	Nov. 1-30.....	10	6	Rats taken, November, 1925: 24,618; rats found infected, 143.
Egypt.....				January 1-November 18, 1925: Cases, 137. Corresponding period, 1924: Cases, 360.
Beni Suef.....	Nov. 18, 1925.....	1	1	
Greece:				
Athens.....	Nov. 1-30.....	18	4	Including Piræus.
Patras.....	Nov. 13.....	1	.....	
India.....				Oct. 18-31, 1925: Cases, 2,534; deaths, 1,696.
Karachi.....	Nov. 1-14.....	3	2	
Rangoon.....	Oct. 25-Nov. 14.....	9	3	
Java:				
Batavia.....	Oct. 24-Nov. 6.....	94	89	Province.
Cheribon.....	Sept. 27-Oct. 17.....	.....	106	
Pekalongan.....	do.....	.....	42	
Soerabaya.....	Oct. 11-24.....	13	13	
Tegal.....	Sept. 27-Oct. 17.....	6	6	
Madagascar:				
Province.....				
Tananarive.....	Sept. 16-28.....	37	36	
Town.....				
Tananarive.....	do.....	2	2	
Mauritius Island.....	Sept. 20-Oct. 17.....	5	5	
Russia.....	May-June.....	67	.....	
Senegal.....	September, 1925.....	22	12	
Siam.....	Aug. 23-Sept. 5.....	23	20	
Syria:				
Beirut.....	Nov. 11-20.....	1	.....	

## SMALLPOX

Argentina:				
Rosario.....	October, 1925.....	.....	1	
Brazil:				
Rio de Janeiro.....	Nov. 1-14.....	71	40	
Canada:				
Manitoba.....				
Winnipeg.....	Dec. 13-19.....	2	.....	
New Brunswick.....				
Northumberland.....	Dec. 6-13.....	1	.....	
Ontario.....				
Ottawa.....	Dec. 6-12.....	2	.....	
China:				
Foochow.....	Nov. 1-14.....	.....	.....	Present.
Hankow.....	Nov. 14-21.....	3	.....	
Manchuria:				
Dairen.....	Oct. 19-25.....	3	1	
Shanghai.....	Oct. 25-Nov. 14.....	4	3	
Tientsin.....	Nov. 1-7.....	1	.....	
France.....				September, 1925: Cases, 25.

<sup>1</sup> From medical officers of the Public Health Service, American consuls, and other sources. For reports received from June 27 to Dec. 25, 1925, see Public Health Reports for Dec. 25, 1925. The tables of quarantinable diseases are terminated semiannually and new tables begun.

**CHOLERA, PLAGUE, SMALLPOX, AND TYPHUS FEVER—Continued**  
**Reports Received from December 26, 1925, to January 8, 1926—Continued**

**SMALLPOX—Continued**

Place	Date	Cases	Deaths	Remarks
Great Britain:				
England—				
Hull	Nov. 29-Dec. 5	2		
Newcastle-on-Tyne	do	4		
Sheffield	Nov. 22-28	5		
Greece				Oct. 1-31, 1925: Cases, 16.
Athens	Nov. 1-30	17	1	
India				Oct. 18-31, 1925: Cases, 2,303; deaths, 530.
Bombay	Nov. 8-14	5	3	
Calcutta	do	1		
Karachi	Nov. 1-21	23		
Madras	Nov. 15-21	1	1	
Rangoon	Oct. 25-31	1		
Iraq				Sept. 6-19, 1925: Cases, 41; deaths, 24.
Bagdad	Nov. 1-14	4	4	
Italy				Aug. 2-Sept. 30, 1925: Cases, 26.
Rome	Oct. 12-25	1		
Java:				
Batavia	Oct. 24-30	1		
Kraksean	Oct. 11-17	11		
Malang	do	2		
North Bantam	Oct. 4-17	4		
Probolingo	Oct. 11-17	1		
South Bantam	do	1		
Soerabaya	Oct. 11-24	168	18	
Tegal	Oct. 4-10	9	1	
Mexico				July-August, 1925: Deaths, 905.
Aguascalientes	Dec. 13-19	4		
Mexico City	Nov. 28-Dec. 5	1		
Torreon	Nov. 1-30		15	
Peru:				
Arequipa	Oct. 1-31		1	
Portugal:				
Lisbon	Oct. 4-31	124		
Do	Nov. 14-28	70		
Oporto	Nov. 22-Dec. 5	1	2	
Russia				May-June, 1925: Cases, 1,336
Siam				July 12-Sept. 5, 1925: Cases, 21; deaths, 6.
Spain:				
Malaga	Nov. 29-Dec. 5		2	
Switzerland				June 28-Oct. 24, 1925: Cases, 36.
Lucerne	Oct. 1-31	6		
Tunisia:				
Tunis	Nov. 21-30	2		

**TYPHUS FEVER**

Algeria:				
Algiers	October, 1925	2		
Argentina:				
Rosario	Oct. 1-31	1		
Egypt:				
Port Said	Nov. 19-25	1		
Finland				October, 1925: One case.
Greece:				
Athens	Nov. 1-30	11	2	
Latvia	October, 1925	2		
Lithuania				September, 1925: Cases, 8; deaths, 1.
Mexico				July-August, 1925; deaths, 65.
Aguascalientes	Dec. 14-19	1		
Guadalajara	Dec. 8-14		1	
Mexico City	Nov. 22-Dec. 5	27		
Torreon	November, 1925		1	
Palestine:				
Nazareth	Nov. 3-9	1		
Peru:				
Arequipa	October, 1925		2	
Poland:				
Warsaw	Oct. 11-17	17	3	
Rumania				July, 1925: Cases, 74; deaths, 9.
Russia				May-June, 1925: Cases, 7,606.
Union of South Africa:				
Orange Free State	Nov. 1-7			Outbreaks.







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TREASURY DEPARTMENT

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# PUBLIC HEALTH REPORTS

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PUBLIC HEALTH SERVICE

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JANUARY 22 - - 1926

===== SPECIAL ARTICLE =====

A Study of Sickness Among 133,000 Industrial Employees



WASHINGTON  
GOVERNMENT PRINTING OFFICE  
1926

## UNITED STATES PUBLIC HEALTH SERVICE

HUGH S. CUMMING, *Surgeon General*

### DIVISION OF SANITARY REPORTS AND STATISTICS

Asst. Surg. Gen. B. J. LLOYD, *Chief of Division*

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They contain: (1) Current information of the prevalence and geographic distribution of preventable diseases in the United States in so far as data are obtainable, and of cholera, plague, smallpox, typhus fever, yellow fever, and other communicable diseases throughout the world. (2) Articles relating to the cause, prevention, or control of disease. (3) Other pertinent information regarding sanitation and the conservation of the public health.

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# PUBLIC HEALTH REPORTS

VOL. 41

JANUARY 22, 1926

NO. 4

## SICKNESS AMONG INDUSTRIAL EMPLOYEES

INCIDENCE AND DURATION OF DISABILITIES FROM IMPORTANT CAUSES LASTING LONGER THAN ONE WEEK AMONG 133,000 PERSONS IN INDUSTRY IN 1924, AND A SUMMARY OF THE EXPERIENCE FOR 1920-1924<sup>1</sup>

In previous issues the incidence rates for disabilities among members of industrial mutual benefit associations and company relief departments, and for factory employees as reported by the plant medical department have been presented for the years 1920-1923.<sup>2</sup> In the present report the sickness frequency rates for the year 1924 are added and some new statistics presented concerning the duration of disability.

The cases tabulated are those for which sick benefits have been paid, or absences reported for disabilities lasting longer than one week. In other words, only those cases have been included which rendered employees unable to work for eight consecutive calendar days or longer.<sup>3</sup>

Industrial accidents are not included. The reports, moreover, do not include all disabling illness and nonindustrial accidents of the duration specified, since most of the reporting industrial mutual associations refuse sick benefits for disability from the venereal diseases, for illness resulting from the violation of any civil law, for the results of willful or gross negligence, and for certain other causes; and many of the associations do not pay for chronic diseases contracted prior to the date of joining the organization, nor for disabilities caused by or growing out of specific physical defects. The reports from the relief or medical departments of industrial companies were made to conform as much as possible with the data from sick-benefit associations by excluding all venereal diseases and other illnesses for which sick benefits ordinarily are not paid.

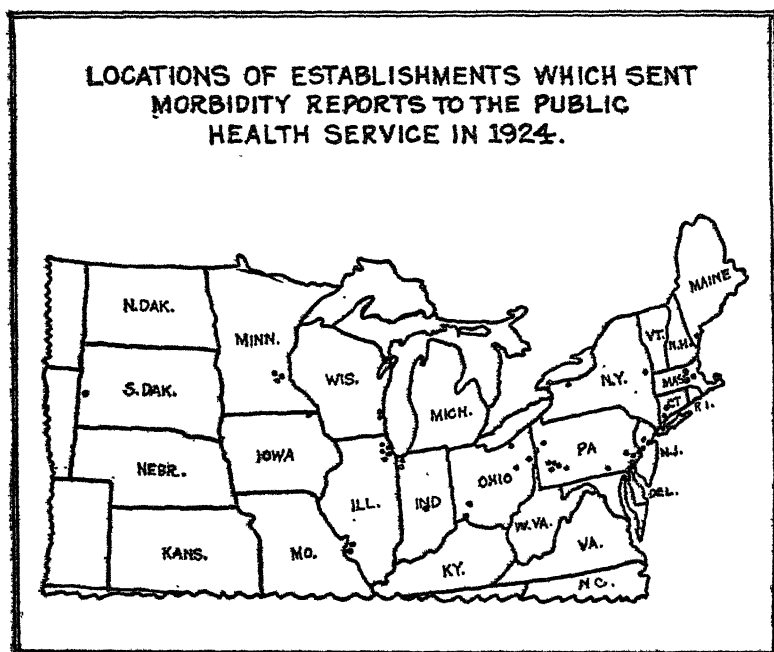
<sup>1</sup> From the Statistical Office in cooperation with the Office of Industrial Hygiene and Sanitation, U. S. Public Health Service. Data collected and tabulated under the immediate supervision of Assistant Statistician Dean K. Brundage. Acknowledgments are made to those association secretaries and industrial physicians whose cooperation has made possible the publication of these data.

<sup>2</sup> A series of articles on the frequency of disabling illness among industrial employees are available in the following reprints:

- (1) Reprint No. 624 from the Public Health Reports of Dec. 3, 1920, pp. 2897-2907.
- (2) Reprint No. 644 from the Public Health Reports of Mar. 4, 1921, pp. 429-434.
- (3) Reprint No. 671 from the Public Health Reports of July 1, 1921, pp. 1497-1502.
- (4) Reprint No. 721 from the Public Health Reports of Jan. 6, 1922, pp. 2-9.
- (5) Reprint No. 807 from the Public Health Reports of Dec. 29, 1922, pp. 3195-3203.
- (6) Reprint No. 969 from the Public Health Reports of Oct. 31, 1924, pp. 2721-2730.

<sup>3</sup> An exception to this statement occurs in the rates for 1920, which include a number of cases lasting only seven days. It was found, however, that the incidence rates for 1920 would not be materially different if recomputed on a strictly eight-day or longer basis.

As pointed out in the previous reports of this series, there are also certain other rules, such as the requirement that the secretary of the association shall be notified whenever a member is moved to another city for treatment or for any other cause, the penalty for violating such rules being the suspension or denial of benefits. Moreover, there are usually age limits for eligibility to membership, which probably results in relatively fewer persons at the older ages in these associations than are found among industrial employees as a whole. For these reasons it is apparent that the sickness rates presented in the accompanying tables are understatements of the amount of serious sickness



actually occurring. The statistics, nevertheless, are of value in affording some knowledge of the relative frequency of different diseases in a sample of the industrial population of the country.

In calculating the sickness frequency rates, the number of persons used as the divisor is the number of employees reported as holding membership in the association, or, in the case of relief or medical department reports, the number on the pay roll at the end of each month.

The accompanying map (fig. 1) shows the places from which the sickness reports for 1924 were sent. All the reporting establishments with one exception were east of the Mississippi and north of the Ohio and Potomac Rivers.

## DISEASES CAUSING DISABILITIES LASTING EIGHT DAYS OR LONGER

The incidence rates for different diseases and disease groups among 114,065 male industrial employees in 1924 compared with the rates for a group of 89,910 males in industry in 1923 and for 66,466 men in 1922 are presented in Table 1. By classifying in accordance with the International List of the Causes of Death (1920 revision) those disabilities among males which lasted eight consecutive days or longer, and then dividing the number of cases of each disease and disease group by the average male membership for the year, any sick-benefit organization with regulations similar to those mentioned above can compare its morbidity experience with the averages presented.

TABLE 1.—*Frequency of specified diseases and disease groups causing disability for 8 calendar days or longer in a group of male industrial workers employed in different industries. Experience for 1924 compared with 1923 and 1922*

Diseases and conditions causing disability (with corresponding title numbers in parentheses from the International List of the Causes of Death, 1920 revision)	Number of cases per 1,000 males			Number of cases		
	1924	1923	1922	1924	1923	1922
All diseases <sup>1</sup> .....	96.0	95.1	96.4	10,948	8,548	6,407
General diseases (1-69 except 38-40).....	31.0	33.5	32.3	3,529	3,011	2,147
Epidemic and endemic diseases (1-10, 12-25).....	3.4	2.4	2.1	383	216	141
Influenza and grippé (11).....	10.9	22.7	20.9	1,023	2,037	1,387
Tuberculosis of the respiratory system (31).....	1.3	1.2	1.9	145	108	125
Cancer, all forms (43-50).....	.6	.5	.6	70	42	42
Rheumatism, acute and chronic (51, 52).....	6.5	4.7	4.6	740	427	303
Other general diseases (26-30, 32-37, 41, 42, 53-69).....	2.3	2.0	2.2	265	181	149
Diseases of the nervous system (70-86) <sup>2</sup> .....	6.3	4.8	6.0	720	433	397
Neuralgia, neuritis, sciatica (82).....	2.3	1.6	2.3	267	144	153
Neurasthenia, nervousness, etc. (84).....	1.6	1.2	1.5	177	110	90
Other nervous diseases (70-81, 83).....	.7	.7	.8	85	60	54
Diseases of the eyes (85).....	1.2	.9	.9	134	80	62
Diseases of the ears and of middle ear (86).....	.5	.4	.5	57	39	29
Diseases of the circulatory system (87-96).....	3.6	3.1	3.8	412	279	251
Diseases of the heart (87-90).....	1.5	1.2	1.3	172	105	85
Diseases of the veins (93).....	1.3	1.3	1.8	149	119	122
Other diseases of the circulatory system (91, 92, 94-96).....	.8	.6	.7	91	55	44
Diseases of the respiratory system (97-107).....	13.6	14.7	15.0	1,552	1,318	1,056
Bronchitis, acute and chronic (99).....	5.0	3.3	5.4	576	472	359
Pneumonia, all forms (100, 101).....	3.1	3.8	3.8	354	345	250
Other diseases of the respiratory system (97, 98, 102-107).....	5.5	5.6	6.7	622	501	447
Diseases of the digestive system (108-127).....	19.7	17.1	17.5	2,248	1,532	1,161
Diseases of the pharynx (103).....	6.4	5.7	5.3	726	615	350
Diseases of the stomach (111, 112).....	4.6	3.9	4.1	521	348	275
Diarrhea and enteritis (114).....	1.9	1.8	1.8	218	161	116
Appendicitis (117).....	3.3	2.9	2.9	372	258	194
Hernia (118a).....	1.3	1.2	1.5	155	108	101
Other diseases of the digestive system (108, 110, 115, 116, 118b-127).....	2.2	1.6	1.9	256	142	125
Nonvenereal diseases of the genito-urinary system and annexa (128-142).....	2.7	2.3	2.6	309	210	174
Nephritis, acute and chronic (128, 129).....	.7	.8	.8	83	72	53
Other diseases in this group (130-142).....	2.0	1.5	1.8	226	138	121
Diseases of the skin and cellular tissue (151-154).....	3.5	3.3	3.6	401	299	237
Diseases of the bones and of the organs of locomotion (155-158).....	3.8	4.2	4.9	437	377	329
Diseases of the bones and of the joints (155, 156).....	.6	1.5	1.5	75	133	99
Lumbago and other diseases of organs of locomotion (158).....	3.2	2.7	3.4	362	244	230
External causes (nonindustrial accidents) (165-203).....	9.6	9.0	7.8	1,093	808	518
Ill-defined diseases and unknown causes (205).....	2.2	3.1	2.0	247	281	137
Number of persons included in the record (years of life exposed).....				114,065	89,910	66,466

<sup>1</sup> Industrial accidents and certain diseases are not reported, as explained in the third paragraph of the text.

<sup>2</sup> Including organs of special sense (eyes, ears).

A part of the information contained in Table 1 is shown graphically in Figure 2. Although cases of influenza and grippe were less frequent in 1924 than in either 1922 or 1923, they remained the leading cause of serious disability in 1924, accounting for 18 per cent of all the sickness claims, compared with 24 per cent in 1923 and 21 per cent in 1922. From the standpoint of interrupted production, wages lost, and expense to sick benefit associations, no other disease in recent years has been so disastrous. In the five years ending December 31, 1924, influenza and grippe disabled industrial employees at a rate which was 6.6 times the frequency of the epidemic, endemic, and infectious diseases against which health work is so largely directed. As a public health problem in nonepidemic as well as in epidemic years, influenza is of outstanding importance. Any considerable reduction in its frequency, even in years like 1921 and 1924 in which no epidemic occurred, would mean the elimination of thousands of days of incapacitation to American wage earners as a whole.

The second most important cause of disability in each of the three years was nonindustrial accidents. Judging from the rates for these years, the trend of nonindustrial injuries is upward, presumably due to an increasing number of automobile accidents.

At practically the same frequency as rheumatism in 1924 was the rate for diseases of the stomach and diarrhea, and for diseases of the pharynx. Tonsillitis, pharyngitis, and other diseases of the pharynx often cause a very considerable amount of incapacitation among industrial workers.<sup>4</sup>

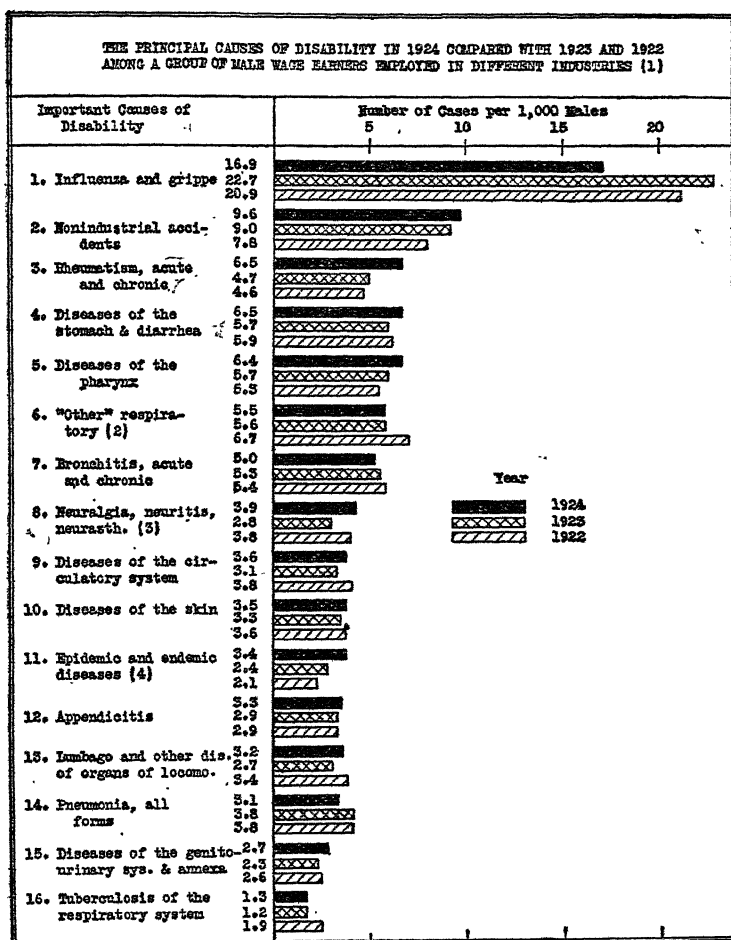
Appendicitis occurred oftener in 1924 than pneumonia (all forms).

The incidence rate of pulmonary tuberculosis was not much above the general death rate for this disease. Evidently many of those who are tubercularly inclined either do not get into industry, or else quit factory employment before the onset of actual incapacitation.

Average annual incidence rates for different diseases and disease groups during the five years ending December 31, 1924, are given in Table 2. This experience represents the equivalent of 424,573 industrial employees under observation for one year, among whom occurred 41,830 cases of sickness and nonindustrial injury causing disability for eight consecutive days or longer. Respiratory diseases, including influenza and grippe, pulmonary tuberculosis, and diseases of the pharynx, accounted for 43 per cent of all the cases. Leaving out of account the accidents, and considering only the diseases, we find that respiratory illnesses caused 47 per cent of the sicknesses.

<sup>4</sup> See Table III, p. 7, in "Disabling Sickness Among Employees of a Rubber Manufacturing Establishment in 1918, 1919, and 1920," Reprint No. 861 from the Public Health Reports of Dec. 15, 1922; also Table I, p. 3, in "Sickness Among 21,000 Automobile Workers," Reprint No. 914 from the Public Health Reports of Apr. 18, 1923.





- (1) Only those disabilities from sickness and nonindustrial accidents which lasted 8 consecutive days or longer are included. Certain diseases are not reported as explained in the text.
- (2) Including severe cold (unqualified) laryngitis, pleurisy, asthma and other respiratory diseases included in title numbers 97, 98, 102-107 in the International List of the Causes of Death - 1920 Revision.
- (3) Title numbers 82 and 84 in the International List of the Causes of Death - 1920 Revision.
- (4) Typhoid fever, malaria, smallpox, measles, scarlet fever, whooping cough, diphtheria, erysipelas, mumps, chickenpox, German measles, etc. (title numbers 1-10, 12-25 in the International List of the Causes of Death - 1920 Revision).

Fig. 2.

TABLE 2.—Average annual frequency (1920-1924, inclusive) of specified diseases and disease groups causing disability for eight consecutive days or longer among a group of wage earners of both sexes in different industries <sup>1</sup>

Diseases and conditions causing disability (with corresponding title numbers in parentheses from the International List of the Causes of Death, 1920 revision)	Annual number of cases per 1,000 persons	Number of cases
All diseases <sup>2</sup> .....	98.5	41,830
General diseases (1-69 except 38-40).....	30.5	13,091
Epidemic and endemic diseases (1-10, 12-25).....	2.8	1,184
Influenza and grippe (11).....	15.5	7,887
Tuberculosis of the respiratory system (31).....	6	2,478
Cancer, all forms (43-50).....	1.6	652
Rheumatism, acute and chronic (51, 52).....	5.2	2,203
Other general diseases (26-30, 32-37, 41, 42, 53-59).....	2.1	859
Diseases of the nervous system (70-86) <sup>3</sup> .....	6.4	2,720
Neuralgia, neuritis, sciatica (82).....	2.0	850
Neurasthenia, nervousness, etc (84).....	2.1	874
Other nervous diseases (70-81, 83).....	.8	335
Diseases of the eyes (85).....	1.0	441
Diseases of the ears and of the mastoid process (86).....	.5	214
Diseases of the circulatory system (87-96).....	3.6	1,509
Diseases of the heart (87-90).....	1.4	593
Diseases of the veins (93).....	1.4	602
Other diseases of the circulatory system (91, 92, 94-96).....	.8	314
Diseases of the respiratory system (97-107).....	15.0	6,363
Bronchitis, acute and chronic (99).....	5.5	2,358
Pneumonia, all forms (100, 101).....	3.2	1,349
Other diseases of the respiratory system (97, 98, 102-107).....	6.3	2,606
Diseases of the digestive system (108-127).....	19.9	8,453
Diseases of the pharynx (109).....	6.9	2,921
Diseases of the stomach (111, 112).....	4.2	1,736
Diarrhea and enteritis (114).....	1.8	763
Appendicitis (117).....	3.5	1,482
Hernia (118a).....	1.4	587
Other diseases of the digestive system (108, 110, 115, 116, 118b-127).....	2.1	879
Nonvenereal diseases of the genito-urinary system and annexa (128-142).....	2.6	1,124
Nephritis, acute and chronic (128, 129).....	.7	293
Other diseases in this group (130-142).....	1.9	831
Diseases of the skin and cellular tissue (151-154).....	3.5	1,482
Diseases of the bones and of the organs of locomotion (155-158).....	4.0	1,697
Diseases of the bones and of the joints (155, 156).....	1.1	484
Lumbago and other diseases of organs of locomotion (158).....	2.9	1,213
External causes (nonindustrial accidents) (165-203).....	9.2	3,917
Ill-defined diseases and unknown causes (205).....	3.5	1,489
Average number of persons included in the record.....		84,915
Years of life exposed.....		424,573

<sup>1</sup> Ten per cent of the total number of persons included in the record were women. A few cases lasting only seven days were included in the data for the year 1920.

<sup>2</sup> Industrial accidents and certain diseases are not reported as explained in the third paragraph of the text.

<sup>3</sup> Including organs of special sense (eyes, ears).

#### SEASONAL VARIATION IN THE INCIDENCE RATE OF SICKNESS

The peak of sickness frequency did not rise as high in 1924 as in any of the four preceding years. It is apparent from Figure 3 that the height of the peaks of sickness incidence was largely determined by the number of cases of influenza and grippe. In 1924 this disease was not as prevalent as in 1920, 1922, and 1923, and did not reach its greatest frequency in a well-defined February peak, as in the other years, with the result that less disability was recorded for the midwinter of 1924 than for the corresponding period of any of the four preceding years. In the fall of 1924, however, both respiratory and nonrespiratory illnesses occurred at a somewhat higher rate than in the corresponding months of 1923.

During the period covered by the records, a tendency is in evidence for the wave of respiratory diseases other than influenza and grippe to get under way and be close to its crest somewhat earlier in the win-

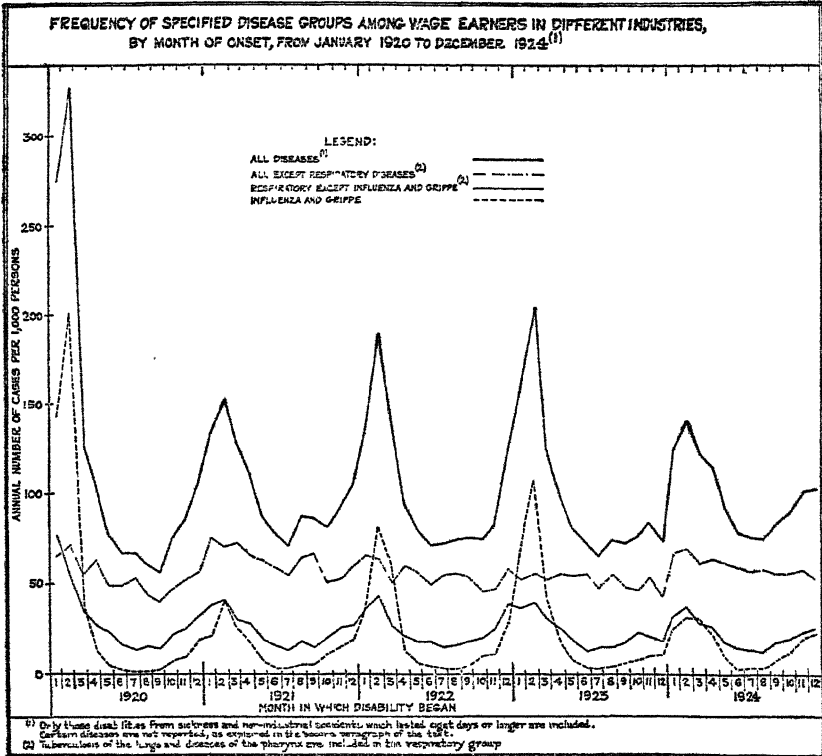


Fig. 5.

ter than the influenza-grippe wave. The nonrespiratory diseases as a group show slight seasonal variation in contrast to the decidedly seasonal characteristic of the respiratory illnesses.

TABLE 3.—Frequency of specified disease groups by month of onset, 1920-1924, among a group of wage earners<sup>1</sup>

Month of onset of disability	Number of cases per 1,000 persons per year				Month of onset of disability	Number of cases per 1,000 persons per year			
	All diseases <sup>1</sup>	Influenza and grippe	Respiratory except influenza and grippe <sup>2</sup>	All except respiratory		All diseases <sup>1</sup>	Influenza and grippe	Respiratory except influenza and grippe <sup>2</sup>	All except respiratory
1920					1922				
January	275.0	142.9	67.4	64.7	July	72.7	3.3	11.5	54.6
February	226.7	201.4	74.4	70.9	August	74.7	3.0	10.1	55.6
March	126.0	57.1	34.1	34.8	September	75.5	4.3	17.6	53.6
April	103.9	14.2	27.4	33.3	October	75.1	9.6	19.7	45.8
May	74.7	4.6	23.2	48.0	November	83.0	11.1	25.0	46.6
June	67.3	2.3	15.6	49.4	December	123.8	28.5	38.7	56.6
July	67.1	.8	12.9	53.4	1923				
August	60.1	1.2	15.2	43.7	January	100.0	70.0	27.4	52.6
September	56.2	2.0	14.0	49.2	February	205.1	109.4	33.5	56.2
October	76.4	7.4	21.8	47.2	March	126.6	42.5	30.7	53.4
November	83.7	9.3	24.9	51.5	April	99.7	18.0	25.4	56.3
December	106.1	18.1	31.6	56.4	May	82.0	7.5	19.4	54.8
1921					June	72.5	3.5	13.3	55.7
January	134.0	20.7	37.6	75.7	July	65.5	2.7	11.8	43.0
February	152.5	40.7	40.5	71.3	August	75.3	4.2	15.2	55.9
March	128.5	25.6	30.4	72.5	September	72.9	5.9	18.0	49.0
April	110.6	16.7	28.3	65.6	October	77.4	7.9	22.6	47.0
May	88.4	6.7	18.5	63.2	November	85.0	9.5	21.3	54.2
June	76.6	3.3	14.6	58.7	December	74.6	11.3	18.6	44.7
July	70.6	3.1	12.7	54.8	1924				
August	87.9	4.7	18.0	65.2	January	125.9	24.8	32.9	68.2
September	86.7	5.2	14.7	66.8	February	142.2	32.6	38.5	71.1
October	81.6	11.1	19.7	50.8	March	124.6	32.2	29.3	63.1
November	94.3	15.4	26.0	52.9	April	116.7	23.8	27.1	65.8
December	105.2	19.0	26.7	59.5	May	94.3	11.2	19.3	63.8
1922					June	80.2	3.9	15.6	60.7
January	138.4	36.5	36.4	65.5	July	77.1	4.2	14.2	58.7
February	189.6	82.2	43.2	64.2	August	76.9	4.1	13.5	59.3
March	139.9	61.3	27.4	51.2	September	84.9	8.4	18.8	57.7
April	94.7	13.1	21.3	60.3	October	91.1	12.9	20.7	57.5
May	80.8	6.4	17.7	56.7	November	104.2	20.8	24.2	59.2
June	72.2	3.8	18.2	50.2	December	105.0	23.4	26.8	54.8

<sup>1</sup> Annual number of cases per 1,000 persons employed in establishments sending morbidity reports to the Public Health Service. Only those disabilities from sickness and nonindustrial accidents which lasted eight days or longer are included, except in 1920, when a few seven-day cases were included. Certain diseases are not reported, as explained in the text.

<sup>2</sup> Tuberculosis of the lungs and diseases of the pharynx are included in the respiratory group.

#### SICKNESS FREQUENCY ACCORDING TO SEX

The female members of reporting sick-benefit associations were disabled oftener than the male members to the extent of 44 per cent during the three years ending December 31, 1924. This difference is not attributable primarily to conditions of the puerperal state, nor to diseases of the female genital organs, because most of the reporting associations pay benefits only for ailments common to both sexes.

Comparison of sickness frequency according to sex shows that the women had more than twice as many cases per 1,000 persons as the men from (1) ill-defined diseases and unknown causes of disability; (2) neurasthenia, nervousness, and the like; (3) diseases of the pharynx; (4) appendicitis; (5) diseases of the respiratory system

other than bronchitis and pneumonia; and (6) nonvenereal diseases of the genito-urinary system and annexa other than nephritis (acute and chronic).

The women had fewer cases of hernia per 1,000 persons than the men, less pneumonia, a lower rate for diseases of the veins, for rheumatism, and for diseases of the bones and of the organs of locomotion.

The two sexes are not comparable, probably, as to age, for a larger proportion of men than of women is usually found in the older age groups. Disabling illness among women over 45 years of age is not much of a factor in industrial morbidity experience, on account of the relatively small number of women in industry who are beyond this age.

When the waiting period for sickness benefits is less than one week, the difference in the disability rates for the two sexes may be expected to exceed 44 per cent. Records of absence from work on account of disability kept by industrial medical departments indicate that the female disability frequency rate may be nearly twice that of the male rate when all illnesses causing absence from work for one day or longer are included.

TABLE 4.—*Frequency of specified disabilities, classified according to sex, 1921-1924*<sup>1</sup>

Diseases and conditions causing disability (with corresponding title numbers in parentheses from the International List of the Causes of Death, 1920 revision)	Annual number of cases per 1,000		Per cent of male rate	Number of cases	
	Males	Females		Males	Females
All diseases <sup>2</sup> .....	94.8	136.4	144	31,907	5,450
General diseases (1-69 except 38-40).....	31.1	33.5	108	10,475	1,339
Epidemic and endemic diseases (1-10, 12-25).....	2.7	3.0	111	912	119
Influenza and gripe (11).....	18.4	20.2	110	6,201	808
Tuberculosis of the respiratory system (31).....	1.5	1.7	113	505	70
Cancer, all forms (43-50).....	.6	.9	150	192	36
Rheumatism, acute and chronic (51, 52).....	5.5	3.1	56	1,842	123
Other general diseases (26-30, 32-37, 41, 42, 53-59).....	2.4	4.6	192	823	183
Diseases of the nervous system (70-86) <sup>3</sup> .....	5.7	13.7	240	1,911	545
Neuralgia, neuritis, sciatica (82).....	2.0	2.7	135	679	107
Neurasthenia, nervousness, etc. (84).....	1.5	7.9	527	493	313
Other nervous diseases (70-81, 83).....	.7	.6	86	254	24
Diseases of the eyes (85).....	1.0	1.6	160	332	65
Diseases of the ears and mastoid process (86).....	.5	.9	180	162	37
Diseases of the circulatory system (87-96).....	3.6	3.3	92	1,213	130
Diseases of the heart (87-90).....	1.4	1.5	107	470	58
Diseases of the veins (93).....	1.5	.8	53	503	31
Other diseases of the circulatory system (91, 92, 94-96).....	.7	1.0	143	240	41
Diseases of the respiratory system (97-107).....	14.3	21.0	147	4,812	839
Bronchitis, acute and chronic (99).....	5.3	6.6	125	1,789	265
Pneumonia, all forms (100, 101).....	3.3	1.4	42	1,121	55
Other diseases of the respiratory system (97, 98, 102-107).....	5.7	13.0	228	1,902	519
Diseases of the digestive system (108-127).....	18.6	33.4	180	6,249	1,333
Diseases of the pharynx (109).....	5.9	15.7	266	1,678	627
Diseases of the stomach (111, 112).....	4.2	4.4	105	1,421	177
Diarrhea and enteritis (114).....	1.9	1.8	95	639	72
Appendicitis (117).....	3.1	7.5	242	1,042	299
Hernia (118a).....	1.5	.3	20	505	12
Other diseases of the digestive system (108, 110, 115, 116, 118b-127).....	2.0	3.7	185	864	146

<sup>1</sup> Only those disabilities from sickness and nonindustrial accidents which lasted eight days or longer are included.

<sup>2</sup> Industrial accidents and certain diseases are not reported as explained in the text.

<sup>3</sup> Including organs of special sense (eyes, ears).

TABLE 4.—*Frequency of specified disabilities, classified according to sex, 1921-1924—Continued*

Diseases and conditions causing disability (with corresponding title numbers in parentheses from the International List of the Causes of Death, 1920 revision)	Annual number of cases per 1,000		Per cent of male rate	Number of cases	
	Males	Females		Males	Females
Nonvenereal diseases of the genito-urinary system and annexa (128-142).....	2.5	4.4	176	858	177
Nephritis, acute and chronic (128, 129).....	.7	.6	86	251	26
Other diseases in this group (130-142).....	1.8	3.8	211	607	151
Diseases of the skin and cellular tissue (151-154).....	3.5	3.2	91	1, 173	130
Diseases of the bones and of the organs of locomotion (155-158).....	4.4	2.4	55	1, 471	97
Diseases of the bones and of the joints (155, 156).....	1.3	1.0	77	436	42
Lumbago and other diseases of the organs of locomotion (158).....	3.1	1.4	45	1, 035	55
External causes (nonindustrial accidents) (165-203).....	8.8	8.9	101	2, 958	356
Ill-defined diseases and unknown causes (205).....	2.3	12.6	548	787	503
Years of life exposed.....				336, 525	39, 967

## SICKNESS FREQUENCY ACCORDING TO ESTABLISHMENTS REPORTING

Sickness rates for the three years ending December 31, 1924, are presented in Table 5 for those establishments which reported throughout this period. Even three-year averages show a wide range in the frequency of sickness in different industrial establishments, the men in establishment No. 1 having nearly three and one-half times as much serious sickness as the men in establishment No. 18. Among the factors which account for such wide differences in the male sickness rates by establishments may be mentioned the following:

(1) Artificial differences resulting from the nature of the by-laws and the administration of the funds. One association may approve sickness claims which others would disallow. The relative differences between wages and sickness benefits is also known to have an effect upon the number of sickness claims.

(2) Differences in age and physical fitness due to the type of work engaged in. In some industries and manufacturing establishments a process of selective recruitment of men of a high standard of physical fitness undoubtedly goes on as a result of the heavy nature of the work. It is to be expected that sickly people will not be found usually in heavy, strenuous trades, but are attracted to the light, sedentary occupations.

(3) Differences due to the influence upon health of the nature of the work and the working environment, and of home and community conditions.

TABLE 5.—*Frequency of illness among males during the three years ending December 31, 1924, by establishments which reported throughout this period*<sup>1</sup>

Establishments arranged according to the size of the illness frequency rate	Years of life exposed, 1922-1924, inclusive	Number of cases which began in these three years	Annual number of cases per 1,000 men	Establishments arranged according to the size of the illness frequency rate	Years of life exposed, 1922-1924, inclusive	Number of cases which began in these three years	Annual number of cases per 1,000 men
Total for establishments reporting continuously during the last 3 years.	218, 161	21, 118	96.8	No. 8.....	3, 248	417	128.5
No. 1.....	13, 520	2, 430	179.7	No. 9.....	14, 738	1, 877	127.4
No. 2.....	12, 199	2, 021	165.7	No. 10.....	3, 887	375	96.5
No. 3.....	10, 383	1, 591	153.2	No. 11.....	30, 000	2, 784	92.1
No. 4.....	3, 637	540	148.5	No. 12.....	3, 647	332	91.0
No. 5.....	1, 456	214	147.0	No. 13.....	10, 082	700	73.4
No. 6.....	8, 389	1, 187	141.5	No. 14.....	2, 635	185	70.6
No. 7.....	1, 666	223	133.9	No. 15.....	44, 048	3, 041	69.0
				No. 16.....	9, 248	611	66.1
				No. 17.....	27, 006	1, 401	59.3
				No. 18.....	18, 276	948	51.6

<sup>1</sup> Includes only those cases of sickness and nonindustrial accidents which caused disability for eight consecutive days or longer.

#### NATURE OF THE ILLNESSES IN CERTAIN INDUSTRIES

In Table 6 the frequency of different diseases and groups of diseases is shown for men in iron and steel manufacturing, in the public utilities, and in a group of miscellaneous industries which include employees of the chemical, abrasive, paper, hat, clock, and certain other industries. The disability rate for men in the public utilities, which include street railway, gas, and electric light and power companies, was 52 per cent above the rate for men in the iron and steel industry and 20 per cent above the experience of the miscellaneous industries group. No specific disease or disease group accounted for the relatively high rates in the public utilities, the frequency of nearly all of the different illnesses shown in the table being somewhat higher in this industry. Comparatively heavy disability rates for nearly all the ailments, and especially for such diseases as pulmonary tuberculosis, gripe (nonepidemic), and diseases of the stomach suggest that the public utilities attract a less healthy type of worker than the steel industry. It is doubtful, however, that persons of a lower standard of physical fitness are attracted to the public utilities than occurs in the "other" industries group, because the sickness rates are low for several representative public service companies. The age distribution of persons on the pay roll, the policy of the different companies in regard to the retention or discharge of persons in poor health, and such artificial factors as the relative difference between wages and sickness benefits may affect the number of sickness claims to an extent sufficient to account for at least part of the 20 per cent excess in the illness frequency rate for public service corporations compared with industry in general as represented by the "other" industries group.

In the iron and steel industry the rates for most of the diseases were lower than for the other two industrial groups. Diseases of the nervous system and of the digestive system were notably infrequent, and a low frequency prevailed for bronchitis and for influenza and grippe. The heavy nature of the work in various occupations of the steel industry apparently causes a selective recruitment of exceptionally sturdy stock, and probably also a selective discharge from the industry of those who find themselves physically unfit for heavy work.

A few diseases, however, were more prevalent in steel than in the other industries. The epidemic and infectious disease rate was high. In this group smallpox, typhoid fever, and malaria accounted for practically all of the excess disability. There were twice as many cases of typhoid and of malaria per 1,000 men in iron and steel as in the other industries as a whole, and 21 times as many cases of smallpox. These diseases obviously are more of a problem in some communities than in others and in certain groups of the population than in other groups, and so may be more difficult to prevent in certain steel manufacturing cities than in places which produce other commodities; but the tendency toward higher epidemic and infectious disease rates in any industry or group of individuals should be under surveillance, and the possible causes studied as thoroughly as the conditions permit.

In the steel industry the pneumonia rate also was found to be markedly above its frequency in the other industries. This result suggested the desirability of a special study of pneumonia morbidity and mortality among iron and steel workers, and a paper presenting such statistics as are available on the subject is being prepared for publication.

TABLE 6.—*Frequency of sickness and nonindustrial accidents causing disability for eight consecutive days or longer among male wage earners, 1922-1924 inclusive, classified according to industries specified*

Diseases and conditions causing disability (with corresponding title numbers in parentheses from the International List of Causes of Death, 1920 revision)	Annual number of cases per 1,000 men			Number of cases		
	Iron and steel	Public utilities	Other industries <sup>1</sup>	Iron and steel	Public utilities	Other industries <sup>1</sup>
All diseases <sup>2</sup> .....	75.9	117.3	97.6	6,847	8,024	11,032
General diseases (1-69 except 38-40).....	29.6	39.9	29.4	2,635	2,727	3,325
Epidemic and endemic diseases (1-10, 12-25).....	3.7	2.8	2.0	330	188	222
Influenza and grippe (11).....	16.7	25.4	18.8	1,493	1,740	2,124
Tuberculosis of the respiratory system (31).....	1.4	2.2	.9	127	150	104
Cancer, all forms (43-50).....	.6	.7	.4	57	50	47
Rheumatism, acute and chronic (51, 52).....	5.1	6.3	5.2	450	432	588
Other general diseases (26-30, 32-37, 41, 42, 53-69).....	2.1	2.5	2.1	188	137	240

<sup>1</sup> Including employees of the chemical, abrasive, paper, hat, clock, and certain other industries.

<sup>2</sup> Industrial accidents and certain diseases are not reported as explained in the third paragraph of the text.



TABLE 6.—*Frequency of sickness and nonindustrial accidents causing disability for eight consecutive days or longer among male wage earners, 1922-1924, inclusive, classified according to industries specified—Continued*

Diseases and conditions causing disability (with corresponding title numbers in parentheses from the International List of Causes of Death, 1920 revision)	Annual number of cases per 1,000 men			Number of cases		
	Iron and steel	Public utilities	Other industries	Iron and steel	Public utilities	Other industries
Diseases of the nervous system (70-86) <sup>2</sup> .....	3.9	6.6	6.7	345	453	752
Neuralgia, neuritis, sciatica (82).....	1.5	2.7	2.2	130	154	245
Neurasthenia, nervousness, etc. (84).....	.5	1.5	2.1	43	109	232
Other nervous diseases (70-81, 83).....	.9	.7	.6	77	50	72
Diseases of the eyes (85).....	.7	1.1	1.2	66	73	137
Diseases of the ears and of the mastoid process (86).....	.3	.6	.6	21	33	63
Diseases of the circulatory system (87-90).....	3.1	4.0	3.5	275	273	353
Diseases of the heart (87-90).....	1.4	1.1	1.5	124	73	165
Diseases of the veins (92).....	1.1	2.2	1.3	94	154	142
Other diseases of the circulatory system (91, 92, 91-93).....	.6	.7	.7	57	51	82
Diseases of the respiratory system (97-107).....	11.6	18.8	14.2	1,036	1,284	1,606
Bronchitis, acute and chronic (99).....	2.9	7.7	5.5	260	529	618
Pneumonia, all forms (100, 101).....	4.9	2.7	2.9	433	182	334
Other diseases of the respiratory system (97, 98, 102-107).....	3.8	8.4	5.8	343	573	654
Diseases of the digestive system (108-127).....	12.8	24.5	18.8	1,143	1,673	2,125
Diseases of the pharynx (109).....	3.5	7.8	6.6	312	534	745
Diseases of the stomach (111, 112).....	3.2	5.9	4.0	285	405	454
Diarrhea and enteritis (114).....	1.4	2.6	1.7	125	175	196
Appendicitis (117).....	2.3	4.1	3.0	209	278	397
Hernia (118a).....	.9	1.9	1.4	77	129	158
Other diseases of the digestive system (108, 110, 115, 116, 118b-127).....	1.5	2.2	2.1	135	152	226
Nonvenereal diseases of the genito-urinary system and annexa (128-142).....	2.3	3.3	2.3	204	225	264
Nephritis, acute and chronic (128, 129).....	.8	1.1	.5	69	76	63
Other diseases in this group (130-142).....	1.5	2.2	1.8	135	149	201
Diseases of the skin and cellular tissue (151-154).....	2.5	3.9	4.0	217	267	453
Diseases of the bones and of the organs of locomotion (155-158).....	3.7	4.9	4.2	331	335	477
Diseases of the bones and of the joints (155, 156).....	.8	1.4	1.2	70	96	141
Lumbago and other diseases of the organs of locomotion (158).....	2.9	3.5	3.0	261	239	336
External causes (nonindustrial accidents) (165-203).....	6.8	8.6	10.8	607	588	1,224
Ill-defined diseases and unknown causes (205).....	.6	2.3	3.7	54	194	417
Average number of persons per year covered by the records.....				29,678	22,807	37,662
Years of life exposed.....				89,035	68,420	112,986

<sup>2</sup> Including organs of special sense (eyes, ears).

#### DURATION OF DISABILITIES IN 1924

The sickness rates presented in this and earlier papers on illness causing disability for at least one week have all been sickness incidence or frequency rates. Table 7 represents a beginning in the presentation of sickness severity rates for males under different maximum periods for which sick benefits are paid. Only a few of the reporting associations have the same benefit period, so that the severity rates under the several benefit periods indicated are based on altogether too little data to constitute an American morbidity experience table. When the data cover a larger number of establishments and a longer period of time they will be of more practical value.

Table 7, however, does show the large amount of time lost on account of influenza and grippe, and indicates that certain disease

groups, such as diseases of the nervous system, of the circulatory system, and of the genito-urinary system, are much more important from the standpoint of the amount of time lost from work than from the standpoint of their frequency of occurrence.

The longer average duration shown for certain diseases under the 26 weeks and 52 weeks benefit period compared with the 13 weeks period suggests the possibility of a tendency toward prolongation of disability when the benefit period is more liberal. The frequency of the very long cases—i. e., those lasting 80 days or longer—was found to be higher in the groups having a 52 weeks benefit period, but since these cases may have been of long duration on account of the age of the person sick, the frequency of cases lasting less than 80 days under the different waiting periods is believed to be a better indication of whether the suggested tendency is real or not. The frequency of cases lasting less than 80 days was found to be practically the same in the group having 13 weeks as the maximum period for which benefits can be paid as under the 52 weeks benefit period. Hence no general tendency toward longer incapacitation can be said to be in evidence when the benefit period covers an entire year.

TABLE 7.—*Calendar days of disability from cases which were closed in 1924, among male members of sick benefit associations, by diseases and disease groups causing disability for eight consecutive days or longer*

Diseases and conditions causing disability (with corresponding title numbers in parentheses from the International List of the Causes of Death, 1920 revision)	Calendar days of disability per case <sup>1</sup>			Calendar days of disability per 1,000 males <sup>1</sup>			Number of cases which were closed in 1924		
	Benefit period, in weeks			Benefit period, in weeks			Benefit period, in weeks		
	13	26	52	13	26	52	13	26	52
All diseases <sup>2</sup> .....	33.29	30.52	58.45	2,378	3,413	4,368	1,473	3,765	1,290
General diseases (1-69, except 38-40).....	31.76	28.45	57.23	712	906	1,664	490	1,081	502
Epidemic and endemic diseases (1-10, 12-25).....	26.55	27.94	44.90	117	69	153	95	84	59
Influenza and grippe (11).....	22.90	17.57	34.49	220	327	465	210	632	234
Tuberculosis of the respiratory system (31).....	54.04	100.04	161.29	96	135	224	25	47	24
Cancer, all forms (43-50).....	45.06	50.10	109.81	35	29	102	17	20	16
Rheumatism, acute and chronic (51, 52).....	37.68	38.69	78.08	183	260	601	108	238	133
Other general diseases (26-30, 32-37, 41, 42, 53-69).....	37.97	40.16	55.47	61	83	116	35	70	36
Diseases of the nervous system (70-86) <sup>3</sup> .....	43.13	44.68	92.49	166	334	402	84	251	75
Neuralgia, neuritis, sciatica (82).....	29.40	38.46	45.59	40	101	98	30	89	37
Neurasthenia, nervousness, etc (84).....	53.00	62.62	113.40	56	122	33	23	66	5
Other nervous diseases (70-81, 83).....	55.40	64.71	212.56	38	40	222	15	21	18
Diseases of the eyes (85).....	40.00	34.00	71.30	20	57	41	11	57	10
Diseases of the ears and of the mastoid process (86).....	50.20	23.62	28.57	12	14	8	5	21	5
Diseases of the circulatory system (87-96).....	45.63	43.12	87.70	124	156	310	60	123	61
Diseases of the heart (87-90).....	63.15	61.93	121.82	51	75	233	17	41	38
Diseases of the veins (93).....	33.09	21.37	35.00	48	31	36	32	43	18
Other diseases of the circulatory system (91, 92, 94-96).....	48.44	44.03	70.00	25	50	41	11	39	10
Diseases of the respiratory system (97-107).....	31.86	27.90	59.82	353	424	593	242	517	171
Bronchitis, acute and chronic (99).....	30.35	22.18	60.21	110	134	131	79	205	34
Pneumonia, all forms (100, 101).....	39.95	50.50	43.82	155	136	170	85	92	67
Other diseases of the respiratory system (97, 98, 102-107).....	24.55	23.78	72.04	88	154	292	78	220	70

<sup>1</sup> Disability during the waiting period—i. e., the first seven days of disability—is included.

<sup>2</sup> Industrial accidents and certain diseases are not reported as explained in the third paragraph of the text.

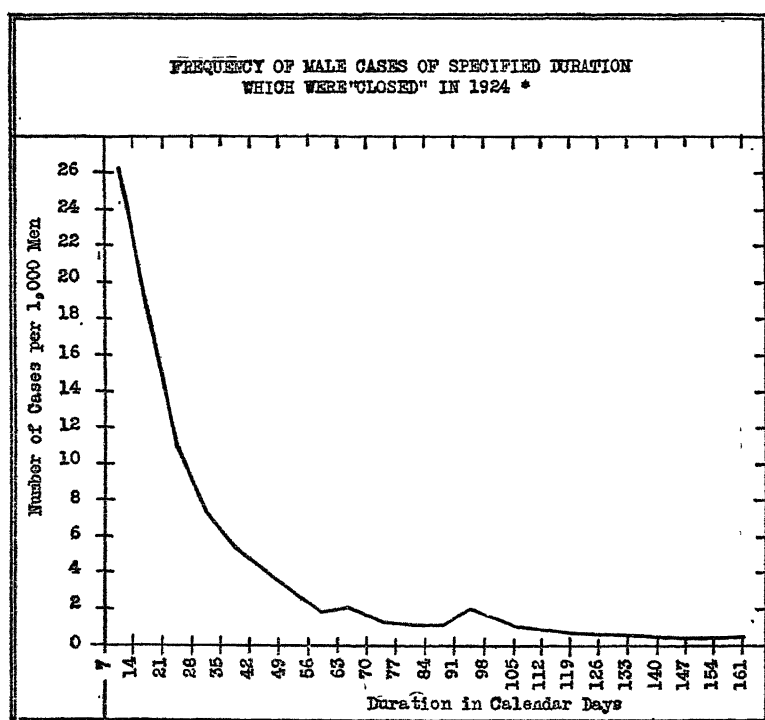
<sup>3</sup> Including organs of special sense (eyes, ears).

TABLE 7.—*Calendar days of disability from cases which were closed in 1924, among male members of sick benefit associations, by diseases and disease groups causing disability for eight consecutive days or longer—Continued*

Diseases and conditions causing disability (with corresponding title numbers in parentheses from the International List of the Causes of Death, 1920 revision)	Calendar days of disability per case			Calendar days of disability per 1,000 males			Number of cases which were closed in 1924		
	Benefit period, in weeks			Benefit period, in weeks			Benefit period, in weeks		
	13	26	52	13	26	52	13	26	52
Diseases of the digestive system (105-127).....	40.06	30.76	43.80	533	773	553	281	854	220
Diseases of the pharynx (105).....	19.72	20.91	19.52	51	105	76	57	317	44
Diseases of the stomach (111, 112).....	40.24	34.89	47.34	121	104	173	16	180	64
Diarrhea and enteritis (114).....	46.85	25.82	48.25	45	63	56	21	91	20
Appendicitis (117).....	48.83	42.03	51.43	161	121	149	72	98	49
Hernia (118a).....	53.32	46.06	63.63	76	67	59	31	49	16
Other diseases of the digestive system (108, 110, 115, 116, 118b-127).....	39.29	39.25	46.07	79	127	72	44	110	27
Nonvenereal diseases of the genito-urinary system and annexa (128-142).....	41.49	45.56	109.85	101	138	273	53	103	43
Nephritis, acute and chronic (128, 129).....	60.12	43.29	178.88	47	39	166	17	28	16
Other diseases in this group (130-142).....	32.69	46.41	68.15	54	162	107	36	75	27
Diseases of the skin and cellular tissue (151-164).....	23.91	24.53	35.92	49	117	81	45	162	39
Diseases of the bones and of the organs of locomotion (155-158).....	38.91	25.80	37.51	60	130	152	34	172	70
Diseases of the bones and of the joints (155, 156).....	48.26	31.40	31.00	81	37	7	14	40	4
Lumbago and other diseases of the organs of locomotion (158).....	32.30	24.10	37.91	29	93	145	20	132	66
External causes (nonindustrial accidents) (165-203).....	34.85	27.95	43.08	252	322	242	158	302	97
Ill-defined diseases and unknown causes (205).....	38.56	35.83	133.92	28	113	93	16	107	12
Number of sick benefit associations included.....	3	5	2						
Average number of male members in 1924.....	21,853	33,995	17,251						

In Table 8 and Figure 4 the distribution of male cases is shown according to their duration. At first there is an abrupt decrease in the frequency as the duration increases. The number of cases lasting 21 days, for example, is only about one-half the number lasting 8 days. After the third or fourth week the decrease in sickness frequency becomes less abrupt until the curve gradually flattens out. The hump in the graph from the ninety-first to the ninety-eighth day is due to the inclusion of a group of associations which pay sick benefits for 13 weeks only, the record for cases which normally would last longer than 13 weeks being automatically terminated on the ninety-eighth day (13 weeks benefit period plus 1 week waiting period).

A curve of this sort is of considerable interest when comparing the sickness in one period with that of another. The aim of industrial medical service is to push the curve to the wall; i. e., to flatten it out toward the left as much as possible, as well as to reduce its level; in short, to corner it. The extent to which this is accomplished from time to time can be shown graphically by comparing the curve of duration in one period with that of another period. It is important to know whether the frequency of the longer cases, especially, is increasing or decreasing.



\* Experience of 73,109 male members of sick benefit associations which keep a record of cases from the first to the 98th day of continuous disability, and of 51,256 male members of associations which record from the first to the 189th day of continuous disability.

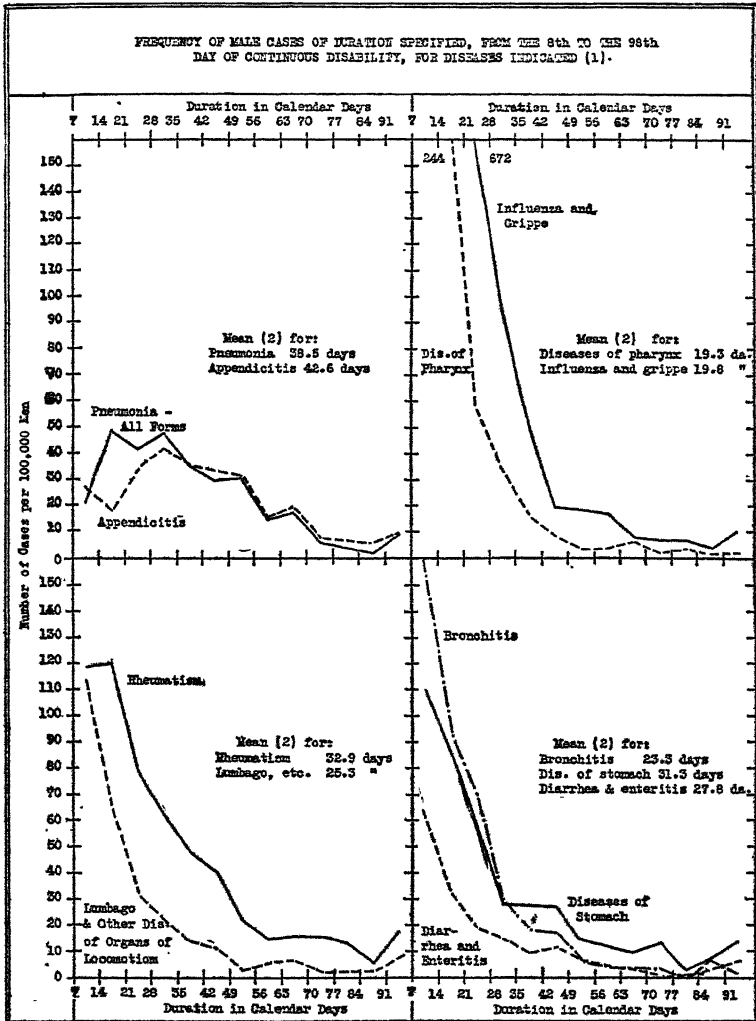
Fig. 4.

TABLE 8.—Frequency of male cases of specified duration which were "closed" in 1924<sup>1</sup>

Duration in calendar days	Number of cases	Number of cases per 1,000 men	Duration in calendar days	Number of cases	Number of cases per 1,000 men
All days.....	6,528		78-84.....	82	1.12
8-14.....	1,921	26.28	85-91.....	84	1.15
15-21.....	1,329	18.18	92-98.....	145	1.98
22-28.....	796	10.89	99-112.....	70	.96
29-35.....	535	7.32	113-126.....	44	.60
36-42.....	389	5.32	127-140.....	31	.42
43-49.....	296	4.05	141-154.....	24	.33
50-56.....	207	2.83	155-168.....	31	.42
57-63.....	135	1.85	169-182.....	22	.30
64-70.....	150	2.05	183-196.....	64	.88
71-77.....	89	1.22	More than 196.....	84	

<sup>1</sup> Experience of 73,109 male members of sick benefit associations which keep a record of cases from the first to the ninety-eighth day of continuous disability, of 51,256 male members of associations which record from the first to the one hundred and eighty-ninth day of continuous disability, and of 17,261 male members of associations which record from the first to the three hundred and seventy-second day of continuous disability.

In Table 9 and Figure 5 the frequency of cases of different duration is shown for certain diseases. A striking difference is seen in the duration curve for pneumonia and for appendicitis compared with diseases of the pharynx and with influenza and gripe. For



- (1) Cases included are those which were "closed" in 1924 in a group of 73,109 male members of 10 large establishment sick benefit funds.  
 (2) Exclusive of cases lasting more than 96 days.

Fig. 5.

the larger associations it would be of interest to compare the frequency of different diseases according to their duration with the results given in the table. The rate of occurrence of cases lasting longer than the expected duration is of particular interest, because

one of the aims of industrial medical service is to get the patient back to his work as soon as practicable. A method of ascertaining the extent to which this has been accomplished over a fairly long period is to compare for the more important diseases the frequency of cases of different duration with the expected frequency based on the experience of a large number of industrial employees. If a higher than expected rate is found for the longer cases, and the results are not explained by the age of the persons sick, it would appear that an opportunity exists for more effective medical attention.

TABLE 9.—Frequency of male cases of duration specified, from the eighth to the ninety-eighth day of continuous disability, for diseases indicated<sup>1</sup>

Duration of disability, in calendar days	Influenza and grippe (11)	Bronchitis (99)	Pneumonia (100, 101)	Diseases of the pharynx (100)	Diseases of the stomach (111, 112)	Dysentery and enteritis (114)	Appendicitis (117)	Diseases of the skin (151-154)	Lumbago and other diseases of organs of locomotion (158)	Rheumatism (51, 52)	Nonindustrial accidents (165-203)
NUMBER OF CASES											
Total, 8 to 98.....	1,058	306	228	413	302	127	211	240	212	423	629
8-14.....	491	116	16	178	51	45	20	90	84	87	204
15-21.....	285	60	36	136	62	24	13	57	48	88	117
22-28.....	115	51	31	43	42	14	25	40	23	68	82
29-35.....	68	22	35	24	21	11	31	14	16	46	47
36-42.....	37	14	26	12	21	7	26	15	10	35	47
43-49.....	14	13	22	6	20	9	25	7	8	30	37
50-56.....	13	5	23	2	11	5	23	5	2	16	24
57-63.....	12	3	11	2	9	3	11	2	4	11	11
64-70.....	5	3	13	5	7	2	15	3	5	12	17
71-77.....	4	3	4	1	10	0	6	2	2	12	17
78-84.....	5	0	3	2	2	1	5	3	2	10	10
85-91.....	2	5	1	1	6	2	4	2	2	4	7
92-98.....	7	2	7	1	10	4	7	0	6	14	9
NUMBER OF CASES PER 100,000 MEN											
8-14.....	672	159	22	244	111	62	27	123	115	119	279
15-21.....	390	94	49	186	85	33	18	78	66	120	160
22-28.....	157	70	42	59	58	19	34	55	32	79	112
29-35.....	99	30	48	33	29	15	42	19	22	63	64
36-42.....	51	19	36	16	29	10	36	21	14	48	64
43-49.....	19	18	30	8	27	12	34	10	11	41	51
50-56.....	18	7	31	8	15	7	32	7	3	22	33
57-63.....	16	4	15	3	12	4	15	3	0	15	15
64-70.....	7	4	18	7	10	3	21	4	7	16	20
71-77.....	6	4	6	1	14	0	8	3	3	16	20
78-84.....	7	0	3	3	1	1	7	4	3	14	14
85-91.....	3	7	1	1	6	3	6	3	3	6	10
92-98.....	10	3	10	1	14	6	10	0	8	19	12
Mean <sup>2</sup> .....	19.8	23.3	38.5	19.3	31.3	27.8	42.6	23.0	25.3	32.9	28.7

<sup>1</sup> Cases included are those which were "closed" in 1924 in a group of 73,109 male members of 10 large establishment sick benefit funds.

<sup>2</sup> Exclusive of cases lasting more than 98 days.

#### SUMMARY

1. Although statistics of sickness incidence based upon the reports of industrial mutual benefit associations of cases causing disability for eight consecutive days or longer are understatements of the amount

of serious illness actually occurring, on account of the common practice of refusing cash benefits for the venereal diseases and for certain other causes of disability, they do afford some knowledge of the relative frequency of different diseases in a sample of the industrial population of the country.

2. Influenza and grippe was not so prevalent in 1924 as in either 1922 or 1923, but still remained the leading cause of disability lasting eight days or longer.

3. Nonindustrial accidents were the second most frequent cause in each of the last three years, and the rate appears to be steadily increasing.

4. Respiratory diseases accounted for 47 per cent of all the cases of sickness reported during the last five years.

5. Less disability was reported in January, February, and March, 1924, than in the same months of each of the four preceding years.

6. The frequency of eight days or longer disabilities was 44 per cent higher among female than among male industrial employees, although the comparison included only those diseases which are common to both sexes.

7. The men in the establishment which had the highest sickness rate for the three years ending December 31, 1924, experienced nearly three and one-half times as many cases as the men in the plant which had the lowest illness rate.

8. There was considerably more sickness reported among men employed in public utilities than in iron and steel manufacturing, and in a group of miscellaneous industries; and the frequency of certain diseases varied considerably according to industry. In iron and steel manufacturing there were relatively few diseases of the nervous system and of the digestive system reported, and the incidence rate for bronchitis and for influenza and grippe was low. On the other hand, a higher rate was found for certain epidemic and infectious diseases such as smallpox, typhoid fever, and malaria, and the pneumonia rate among iron and steel workers was well above its frequency in the other industries included in the study.

9. Sickness severity rates for the year 1924 under three different benefit periods indicate that certain disease groups, such as diseases of the nervous system, of the circulatory system, and of the genito-urinary system, are much more important from the standpoint of the amount of time lost from work than from the standpoint of their frequency of occurrence. "Influenza and grippe," however, is important from both points of view. No general tendency toward longer incapacitation appears to be in evidence under longer benefit periods.

## INCREASING DEMAND FOR PUBLIC HEALTH COURSES

### Texas A. & M. College Augments its Curriculum in Public Health

According to a recent Weekly News Letter issued by the Texas State Board of Health, the State Agricultural and Mechanical College of Texas will, beginning this year, offer a new course in public-health education—rural sanitation. The course will be elective and will include subjects most vitally related to health in rural districts, such as the following: Safe sewage disposal for rural homes; safeguarding farm water supplies; malaria control; hook-worm control; sanitation of rural schools; milk as a disease-carrying vehicle; sanitary requirements of municipalities governing rural dairies; community and county health work; and the general relation of sanitation to health.

As the News Letter states, this expansion in the public-health curriculum is evidence of the increasing interest in public health work.

This is the second course in public health that is being offered by this college, the other course being that of "City management and sanitary engineering." It is stated that the latter course was made necessary by the great demand by the municipalities of the State for trained health workers in this comparatively new field of service that is appealing to the best talent of the country. The course includes the following subjects: City government; the administration of city departments; city planning; public utilities; principles and methods of sewage treatment; water purification; garbage and refuse collection and disposal; mosquito control; and sanitation and public health.

In addition to these courses, special public-health subjects are also being offered by Baylor College; and from present indications similar courses will, in the near future, be given by other colleges and universities of the State.

## DEATHS DURING WEEK ENDED JANUARY 9, 1926

*Summary of information received by telegraph from industrial insurance companies for week ended January 9, 1926, and corresponding week of 1925. (From the Weekly Health Index, January 12, 1926, issued by the Bureau of the Census, Department of Commerce)*

	Week ended Jan. 9, 1926	Corresponding week 1925
Policies in force.....	60, 559, 182	58, 318, 201
Number of death claims.....	12, 506	11, 695
Death claims per 1,000 policies in force, annual rate..	10. 8	10. 5



*Deaths from all causes in certain large cities of the United States during the week ended January 9, 1926, infant mortality, annual death rate, and comparison with corresponding week of 1925. (From the Weekly Health Index, January 12, 1926, issued by the Bureau of the Census, Department of Commerce)*

City	Week ended Jan. 9, 1926		Annual death rate per 1,000 corresponding week 1925	Deaths under 1 year		Infant mortality rate week ended Jan. 9, 1925 <sup>1</sup>
	Total deaths	Death rate <sup>2</sup>		Week ended Jan. 9, 1926	Corresponding week 1925	
Total (69 cities).....	8,709	15.6	14.6	69	922	71
Akron.....	52			11	8	117
Albany.....	53	23.5	17.3	5	1	105
Atlanta.....	63			10	14	
White.....	39			8		
Colored.....	24	( <sup>3</sup> )		2		
Baltimore.....	270	17.7	20.0	24	21	70
White.....	212			18		
Colored.....	58	( <sup>3</sup> )		6		
Birmingham.....	98	24.8	20.8	15	14	
White.....	50			6		
Colored.....	48	( <sup>3</sup> )		7		
Boston.....	249	16.7	17.1	27	45	76
Bridgeport.....	30			3	0	51
Buffalo.....	175	17.0	15.4	20	17	83
Cambridge.....	28	12.2	15.7	6	0	100
Camden.....	41	16.6	15.4	6	4	101
Canton.....	25	12.3	11.8	5	3	111
Chicago.....	739	12.9	14.3	73	115	65
Cincinnati.....	169	21.5	17.1	11	14	68
Cleveland.....	240	13.4	10.4	30	24	78
Columbus.....	81	15.1	15.5	6	7	55
Dallas.....	56	15.1	11.1	7	7	
White.....	43			6		
Colored.....	13	( <sup>3</sup> )		1		
Dayton.....	40	12.1	11.5	7	2	110
Denver.....	74	13.7	15.0	5	8	
Des Moines.....	47	16.4	11.2	2	2	33
Detroit.....	314	13.1	10.9	59	49	95
Duluth.....	24	11.3	11.8	5	2	117
El Paso.....	42	20.9	17.4	6	8	
Erie.....	32			4	6	76
Fall River.....	33	13.3	12.5	5	3	73
Flint.....	23	9.2	6.8	5	1	83
Fort Worth.....	36	12.3	10.9	7	6	
White.....	30			6		
Colored.....	6	( <sup>3</sup> )		1		
Grand Rapids.....	40	13.6	12.9	2	2	29
Houston.....	73	23.1	16.1	10	5	
White.....	57			9		
Colored.....	16	( <sup>3</sup> )		1		
Indianapolis.....	102	14.8	14.2	7	5	53
White.....	83			6		
Colored.....	19	( <sup>3</sup> )		1		
Jacksonville.....	56	27.8	23.4	7	2	153
Jersey City.....	86	14.2	14.9	11	12	78
Kansas City, Kans.....	40	18.0	16.6	1	4	17
White.....	28			1		21
Colored.....	12	( <sup>3</sup> )		0		9
Kansas City, Mo.....	88	12.5	13.2	7	2	
Los Angeles.....	285			26	36	72
Louisville.....	86	14.8	12.9	10	12	86
White.....	66			9		90
Colored.....	20	( <sup>3</sup> )		1		63
Lowell.....	45	21.3	15.6	8	8	149
Lynn.....	35	17.7	13.2	1	3	25

<sup>1</sup> Annual rate per 1,000 population.

<sup>2</sup> Deaths under 1 year per 1,000 births—an annual rate based on deaths under 1 year for the week and estimated births for 1924. Cities left blank are not in the registration area for births.

<sup>3</sup> Data for 64 cities.

<sup>4</sup> Deaths for week ended Friday, January 8, 1926.

<sup>5</sup> In the cities for which deaths are shown by color, the colored population in 1920 constituted the following per cents of the total population: Atlanta 31, Baltimore 15, Birmingham 39, Dallas 15, Fort Worth 14, Houston 25, Kansas City, Kans., 14, Louisville 17, Memphis 38, Nashville 30, New Orleans 26, Norfolk 33, Richmond 32, and Washington, D. C., 25.

Deaths from all causes in certain large cities of the United States during the week ended January 9, 1926, infant mortality, annual death rate, and comparison with corresponding week of 1925. (From the Weekly Health Index, January 12, 1926, issued by the Bureau of the Census, Department of Commerce)—Contd.

City	Week ended Jan. 9, 1926		Annual death rate per 1,000 corresponding week 1925	Deaths under 1 year		Infant mortality rate week ended Jan. 9, 1926
	Total deaths	Death rate		Week ended Jan 9, 1926	Corresponding week 1925	
Memphis.....	70	20.9	20.3	10	1	-----
White.....	36			5	-----	-----
Colored.....	34	( <sup>5</sup> )		5	-----	-----
Milwaukee.....	138	14.3	11.4	22	15	102
Minneapolis.....	107	13.1	12.6	12	12	67
Nashville <sup>4</sup> .....	48	18.4	17.2	8	7	-----
White.....	28			5	-----	-----
Colored.....	20	( <sup>5</sup> )		3	-----	-----
New Bedford.....	29	12.6	7.9	5	1	87
New Haven.....	58	16.9	12.5	5	4	68
New Orleans.....	181	22.8	18.1	20	16	-----
White.....	95			8	-----	-----
Colored.....	86	( <sup>5</sup> )		12	-----	-----
New York.....	1,720	15.3	14.7	148	186	60
Bronx Borough.....	194	11.6	11.3	12	21	40
Brooklyn Borough.....	556	13.2	12.4	54	65	55
Manhattan Borough.....	741	19.9	20.2	62	72	68
Queens Borough.....	173	12.6	10.1	15	22	68
Richmond Borough.....	56	21.1	21.1	5	6	88
Newark, N. J.....	118	13.6	17.4	8	27	38
Norfolk.....	37			4	2	74
White.....	18			1	-----	30
Colored.....	19	( <sup>5</sup> )		3	-----	149
Oakland.....	81	16.6	13.2	6	3	69
Oklahoma City.....	28			3	4	-----
Omaha.....	58	14.3	8.4	6	1	62
Paterson.....	45	16.6	20.6	4	4	70
Philadelphia.....	668	17.6	16.3	68	67	90
Pittsburgh.....	240	19.8	13.6	27	22	90
Portland, Oreg.....	59	10.9	12.6	2	1	20
Providence.....	94	18.3	11.5	9	8	75
Richmond.....	66	18.5	14.5	7	7	88
White.....	38			3	-----	59
Colored.....	28	( <sup>5</sup> )		4	-----	140
Rochester.....	85	14.0	12.2	8	6	64
St. Louis.....	228	14.5	18.2	14	28	-----
St. Paul.....	68	14.4	10.0	6	7	53
Salt Lake City <sup>4</sup> .....	33	13.1	13.5	2	4	28
San Antonio.....	56	14.7	18.2	8	8	-----
San Diego.....	41	20.2	17.6	1	12	21
San Francisco.....	234	21.9	16.2	9	3	54
Schenectady.....	29	16.3	10.7	0	2	0
Seattle.....	93			9	2	83
Somerville.....	29	15.3	10.0	1	2	26
Spokane.....	29	13.9	14.4	2	2	47
Springfield, Mass.....	35	12.8	13.6	6	5	87
Syracuse.....	48	13.8	12.6	4	6	51
Tacoma.....	28	14.0	17.0	4	2	93
Toledo.....	89	16.1	13.4	13	7	126
Trenton.....	48	19.0	23.3	2	7	33
Washington, D. C.....	178	18.6	13.3	8	10	45
White.....	123			7	-----	-----
Colored.....	55	( <sup>5</sup> )		1	-----	-----
Waterbury.....	28			4	4	86
Wilmington, Del.....	34	14.5	15.4	5	7	117
Worcester.....	68	18.6	11.8	4	5	46
Yonkers.....	27	12.4	10.6	0	5	0
Youngstown.....	34	11.1	10.8	5	4	64

<sup>4</sup> Deaths for week ended Friday, January 8, 1926.

<sup>5</sup> In the cities for which deaths are shown by color, the colored population in 1920 constituted the following per cents of the total population: Atlanta 31, Baltimore 15, Birmingham 39, Dallas 15, Fort Worth 14, Houston 25, Kansas City, Kans., 14, Louisville 17, Memphis 38, Nashville 30, New Orleans 28, Norfolk 33, Richmond 32, and Washington, D. C., 25.

# PREVALENCE OF DISEASE

*No health department, State or local, can effectively prevent or control disease without knowledge of when, where, and under what conditions cases are occurring*

## UNITED STATES

### CURRENT WEEKLY STATE REPORTS

These reports are preliminary, and the figures are subject to change when later returns are received by the State health officers

Reports for Week Ended January 16, 1926

ALABAMA		CALIFORNIA	
	Cases		Cases
Cerebrospinal meningitis	2	Cerebrospinal meningitis:	
Chicken pox	39	Modesto	1
Dengue	1	Sacramento	2
Diphtheria	25	San Francisco	1
Influenza	147	Chicken pox	260
Malaria	7	Diphtheria	80
Measles	21	Influenza	614
Mumps	195	Lethargic encephalitis—Sonora	1
Pellagra	2	Measles	38
Pneumonia	240	Mumps	161
Polio myelitis	1	Scarlet fever	139
Scarlet fever	24	Smallpox:	
Smallpox	49	Los Angeles	85
Tetanus	1	Los Angeles County	10
Tuberculosis	46	Riverside	10
Typhoid fever	9	Scattering	40
Whooping cough	18	Typhoid fever	16
		Whooping cough	80
ARIZONA		COLORADO	
Chicken pox	31	Chicken pox	77
Diphtheria	6	Diphtheria	16
Measles	2	Impetigo contagiosa	1
Mumps	1	Measles	4
Pellagra	1	Mumps	15
Pneumonia	1	Pneumonia	5
Scarlet fever	32	Scarlet fever	41
Smallpox	1	Tuberculosis	23
Trachoma	2	Typhoid fever	1
Tuberculosis	12	Whooping cough	36
Whooping cough	7		
ARKANSAS		CONNECTICUT	
Chicken pox	20	Chicken pox	148
Diphtheria	6	Diphtheria	41
Hookworm disease	1	German measles	7
Influenza	174	Influenza	5
Malaria	28	Measles	475
Mumps	2	Mumps	15
Pellagra	4	Ophthalmia neonatorum	1
Scarlet fever	9	Pneumonia (broncho)	52
Smallpox	1	Pneumonia (lobar)	51
Trachoma	3	Scarlet fever	74
Tuberculosis	6	Septic sore throat	1
Typhoid fever	4	Tuberculosis (all forms)	25
Whooping cough	9	Typhoid fever	3
		Whooping cough	89

DELAWARE	Cases
Chicken pox.....	2
Diphtheria.....	4
Influenza.....	4
Measles.....	17
Mumps.....	1
Pneumonia.....	2
Scarlet fever.....	7
Tuberculosis.....	24
Typhoid fever.....	1
Whooping cough.....	3

FLORIDA	Cases
Chicken pox.....	39
Dengue.....	2
Diphtheria.....	17
German measles.....	1
Influenza.....	11
Malaria.....	7
Measles.....	3
Mumps.....	27
Pneumonia.....	17
Scarlet fever.....	6
Smallpox.....	89
Tuberculosis.....	4
Typhoid fever.....	6
Whooping cough.....	4

GEORGIA	Cases
Cerebrospinal meningitis.....	1
Chicken pox.....	25
Conjunctivitis (infectious).....	1
Diphtheria.....	27
Dysentery.....	1
Hookworm disease.....	4
Influenza.....	335
Lethargic encephalitis.....	1
Malaria.....	12
Measles.....	32
Mumps.....	29
Paratyphoid fever.....	1
Pneumonia.....	126
Scarlet fever.....	7
Septic sore throat.....	11
Smallpox.....	7
Tetanus.....	2
Tuberculosis.....	21
Typhoid fever.....	10
Typhus fever.....	2
Whooping cough.....	8

ILLINOIS	Cases
Diphtheria.....	108
Influenza.....	29
Measles.....	357
Pneumonia.....	380
Polomyelitis:	
Edgar County.....	1
Platt County.....	1
Vermilion County.....	1
Scarlet fever.....	381
Smallpox:	
Marshall County.....	12
Scattering.....	43
Tuberculosis.....	221
Typhoid fever.....	21
Whooping cough.....	165

INDIANA	Cases
Chicken pox.....	118
Diphtheria.....	36
Influenza.....	50
Measles.....	490
Mumps.....	5
Pneumonia.....	19
Polomyelitis.....	1
Scarlet fever.....	264
Smallpox.....	164
Tuberculosis.....	27
Typhoid fever.....	6
Whooping cough.....	136

IOWA	Cases
Chicken pox.....	60
Diphtheria.....	19
Measles.....	115
Mumps.....	27
Pneumonia.....	1
Scarlet fever.....	65
Smallpox.....	32
Typhoid fever.....	1
Whooping cough.....	10

KANSAS	Cases
Cerebrospinal meningitis—Conway Springs.....	1
Chicken pox.....	129
Diphtheria.....	22
German measles.....	1
Influenza.....	25
Measles.....	72
Mumps.....	13
Pneumonia.....	78
Scarlet fever.....	94
Smallpox:	
Holsington.....	19
Scattering.....	3
Tuberculosis.....	52
Typhoid fever.....	5
Whooping cough.....	57

LOUISIANA	Cases
Diphtheria.....	22
Influenza.....	41
Malaria.....	3
Pneumonia.....	50
Scarlet fever.....	17
Smallpox.....	34
Tuberculosis.....	55
Typhoid fever.....	24
Whooping cough.....	9

MAINE	Cases
Cerebrospinal meningitis.....	1
Chicken pox.....	14
Diphtheria.....	7
Influenza.....	3
Measles.....	4
Mumps.....	34
Paratyphoid fever.....	1
Pneumonia.....	15
Polomyelitis.....	1
Scarlet fever.....	25
Septic sore throat.....	2
Tuberculosis.....	3
Typhoid fever.....	4
Whooping cough.....	19

MARYLAND <sup>1</sup>		MISSISSIPPI	
	Cases		Cases
Cerebrospinal meningitis.....	2	Diphtheria.....	15
Chicken pox.....	160	Scarlet fever.....	9
Diphtheria.....	28	Smallpox.....	14
Dysentery.....	3	Typhoid fever.....	3
German measles.....	1		
Influenza.....	96	MISSOURI	
Measles.....	749	Cerebrospinal meningitis.....	1
Mumps.....	128	Chicken pox.....	69
Ophthalmia neonatorum.....	4	Diphtheria.....	73
Pneumonia (broncho).....	69	Influenza.....	19
Pneumonia (lobar).....	129	Measles.....	20
Scarlet fever.....	47	Mumps.....	47
Tetanus.....	1	Pneumonia.....	9
Tuberculosis.....	85	Rabies.....	2
Typhoid fever.....	3	Scarlet fever.....	197
Typhus fever.....	1	Smallpox.....	2
Vincent's angina.....	1	Tuberculosis.....	34
Whooping cough.....	48	Typhoid fever.....	9
		Whooping cough.....	15
MASSACHUSETTS		MONTANA	
Cerebrospinal meningitis.....	7	Chicken pox.....	37
Chicken pox.....	283	Diphtheria.....	6
Conjunctivitis (suppurative).....	24	German measles.....	3
Diphtheria.....	105	Measles.....	10
German measles.....	53	Mumps.....	82
Hookworm disease.....	1	Scarlet fever.....	43
Influenza.....	12	Smallpox.....	5
Measles.....	1,550	Tuberculosis.....	3
Mumps.....	81	Typhoid fever.....	1
Ophthalmia neonatorum.....	24	Whooping cough.....	8
Pneumonia (lobar).....	184		
Scarlet fever.....	280	NEBRASKA	
Septic sore throat.....	1	Chicken pox.....	11
Trachoma.....	4	Diphtheria.....	15
Trichinosis.....	1	German measles.....	1
Tuberculosis (pulmonary).....	128	Influenza.....	2
Tuberculosis (other forms).....	37	Measles.....	3
Typhoid fever.....	7	Mumps.....	4
Whooping cough.....	404	Scarlet fever.....	35
		Smallpox.....	19
MICHIGAN		Typhoid fever.....	2
Diphtheria.....	68	Whooping cough.....	20
Measles.....	844		
Pneumonia.....	192	NEW JERSEY	
Scarlet fever.....	345	Chicken pox.....	386
Smallpox.....	7	Diphtheria.....	113
Tuberculosis.....	57	Influenza.....	24
Typhoid fever.....	13	Leprosy.....	1
Whooping cough.....	293	Measles.....	1,028
		Pneumonia.....	279
MINNESOTA		Scarlet fever.....	254
Cerebrospinal meningitis.....	1	Typhoid fever.....	9
Chicken pox.....	189	Whooping cough.....	63
Diphtheria.....	68		
Influenza.....	2	NEW MEXICO	
Lethargic encephalitis.....	1	Chicken pox.....	27
Measles.....	17	Diphtheria.....	4
Pneumonia.....	6	Influenza.....	5
Poliomyelitis.....	2	Measles.....	5
Scarlet fever.....	277	Mumps.....	6
Smallpox.....	9	Pneumonia.....	16
Tuberculosis.....	47	Poliomyelitis.....	1
Typhoid fever.....	4	Rabies (in animals).....	1
Whooping cough.....	35	Scarlet fever.....	11
		Trachoma.....	1

<sup>1</sup> Week ended Friday.

## NEW MEXICO—continued

	Cases
Tuberculosis.....	20
Typhoid fever.....	1
Vincent's angina.....	1
Whooping cough.....	20

## NEW YORK

(Exclusive of New York City)

Diphtheria.....	89
Influenza.....	43
Lethargic encephalitis.....	1
Measles.....	725
Pneumonia.....	423
Polioomyelitis.....	3
Scarlet fever.....	240
Smallpox.....	2
Typhoid fever.....	38
Whooping cough.....	347

## NORTH CAROLINA

Cerebrospinal meningitis.....	1
Chicken pox.....	145
Diphtheria.....	29
German measles.....	5
Measles.....	44
Scarlet fever.....	54
Septic sore throat.....	3
Smallpox.....	42
Typhoid fever.....	4
Whooping cough.....	77

## OKLAHOMA

(Exclusive of Tulsa and Oklahoma City)

Cerebrospinal meningitis—Muskogee.....	1
Chicken pox.....	45
Diphtheria.....	21
Influenza.....	308
Malaria.....	12
Measles.....	3
Mumps.....	4
Pellagra.....	3
Pneumonia.....	183
Scarlet fever.....	39
Typhoid fever.....	13
Whooping cough.....	34

## OREGON

Cerebrospinal meningitis.....	1
Chicken pox.....	26
Diphtheria.....	15
Influenza.....	21
Measles.....	8
Mumps.....	43
Ophthalmia neonatorum.....	1
Pneumonia.....	12
Scarlet fever.....	40
Smallpox.....	
Deschutes County.....	31
Scattering.....	19
Tuberculosis.....	9
Typhoid fever.....	2
Whooping cough.....	19

\* Deaths.

## PENNSYLVANIA

	Cases
Cerebrospinal meningitis—Beaver Meadows.....	1
Chicken pox.....	748
Diphtheria.....	228
German measles.....	18
Measles.....	2,350
Mumps.....	212
Ophthalmia neonatorum—Philadelphia.....	4
Pneumonia.....	56
Polioomyelitis.....	2
Scabies.....	10
Scarlet fever.....	516
Tuberculosis.....	119
Typhoid fever.....	30
Whooping cough.....	273

## RHODE ISLAND

Chicken pox.....	6
Diphtheria.....	17
German measles.....	4
Influenza.....	10
Measles.....	468
Ophthalmia neonatorum.....	2
Pneumonia.....	1
Scarlet fever.....	10
Tuberculosis.....	4
Whooping cough.....	3

## SOUTH DAKOTA

Anthrax.....	1
Chicken pox.....	14
Diphtheria.....	3
Measles.....	1
Mumps.....	107
Pneumonia.....	1
Scarlet fever.....	35
Smallpox.....	4
Typhoid fever.....	1
Whooping cough.....	2

## TENNESSEE

Cerebrospinal meningitis—Blount County.....	1
Chicken pox.....	37
Diphtheria.....	18
Influenza.....	180
Lethargic encephalitis—Blount County.....	1
Malaria.....	4
Measles.....	152
Mumps.....	14
Pellagra.....	5
Pneumonia.....	151
Scarlet fever.....	22
Smallpox.....	11
Tuberculosis.....	20
Typhoid fever.....	4
Whooping cough.....	32

## TEXAS

Cerebrospinal meningitis.....	1
Chicken pox.....	37
Dengue.....	4
Diphtheria.....	37
Influenza.....	91

TEXAS—continued		WEST VIRGINIA	
	Cases		Cases
Paratyphoid fever.....	2	Diphtheria.....	8
Pellagra.....	5	Scarlet fever.....	11
Pneumonia.....	30	Typhoid fever.....	2
Scarlet fever.....	33		
Smallpox.....	20	WISCONSIN	
Tuberculosis.....	25	Milwaukee:	
Typhoid fever.....	4	Cerebrospinal meningitis.....	3
Whooping cough.....	37	Chicken pox.....	151
UTAH		Diphtheria.....	41
Cerebrospinal meningitis—Salt Lake City.....	1	German measles.....	2
Chicken pox.....	87	Influenza.....	1
Diphtheria.....	10	Measles.....	7
Influenza.....	14	Mumps.....	28
Measles.....	2	Pneumonia.....	24
Mumps.....	48	Scarlet fever.....	21
Pneumonia.....	10	Tuberculosis.....	14
Scarlet fever.....	14	Typhoid fever.....	5
Smallpox.....	16	Whooping cough.....	58
Tuberculosis.....	1	Scattering:	
Whooping cough.....	32	Chicken pox.....	270
VERMONT		Diphtheria.....	25
Chicken pox.....	41	German measles.....	5
Measles.....	1	Influenza.....	41
Mumps.....	69	Lethargic encephalitis.....	1
Scarlet fever.....	22	Measles.....	148
Typhoid fever.....	2	Mumps.....	366
Whooping cough.....	52	Pneumonia.....	39
VIRGINIA		Poliomyelitis.....	1
Smallpox.....	8	Scarlet fever.....	183
WASHINGTON		Smallpox.....	12
Cerebrospinal meningitis—Spokane.....	2	Trachoma.....	2
Chicken pox.....	107	Tuberculosis.....	14
Diphtheria.....	17	Typhoid fever.....	3
German measles.....	12	Whooping cough.....	98
Measles.....	11		
Mumps.....	109	WYOMING	
Scarlet fever.....	113	Chicken pox.....	9
Smallpox:		Diphtheria.....	7
Tacoma.....	20	German measles.....	1
Yakima County.....	35	Influenza.....	4
Scattering.....	38	Measles.....	4
Tuberculosis.....	48	Mumps.....	7
Typhoid fever.....	1	Pneumonia.....	1
Whooping cough.....	40	Scarlet fever.....	11
		Whooping cough.....	6

## Reports for Week Ended January 9, 1926

DISTRICT OF COLUMBIA		IOWA—continued	
	Cases		Cases
Chicken pox.....	28	Smallpox.....	27
Diphtheria.....	59	Whooping cough.....	32
Influenza.....	5		
Measles.....	12	NORTH DAKOTA	
Pneumonia.....	85	Cerebrospinal meningitis.....	2
Scarlet fever.....	25	Chicken pox.....	29
Tuberculosis.....	6	Diphtheria.....	9
Whooping cough.....	7	German measles.....	4
		Lethargic encephalitis.....	1
IOWA		Mumps.....	66
Chicken pox.....	41	Pneumonia.....	11
Diphtheria.....	23	Scarlet fever.....	86
Measles.....	117	Smallpox.....	9
Mumps.....	29	Trachoma.....	1
Pneumonia.....	2	Tuberculosis.....	2
Scarlet fever.....	72	Typhoid fever.....	16

## SUMMARY OF MONTHLY REPORTS FROM STATES

The following summary of monthly State reports is published weekly and covers only those States from which reports are received during the current week:

State	Cerebro-spinal meningitis	Diphtheria	Influenza	Malaria	Measles	Pellagra	Polio-myelitis	Scarlet fever	Small-pox	Typhoid fever
<i>August, 1925</i>										
Colorado.....		84	2		5		11	54	1	71
<i>September, 1925</i>										
Colorado.....		149			18		6	43	1	87
<i>October, 1925</i>										
Nebraska.....		81					46	84		7
<i>November, 1925</i>										
Nebraska.....	2	29					14	106		12
<i>December, 1925</i>										
Arkansas.....	2	27	303	113	6	21	0	45	11	56
Colorado.....		113	3		30		1	91	4	25
Georgia.....		93	607	62	14	18	2	30	22	61
Indiana.....	3	228	145				2	918		88
Nebraska.....	3	47	1				2	178		10
North Dakota.....		28	5		14		2	281	10	7

## PLAGUE-ERADICATIVE MEASURES IN THE UNITED STATES

The following items were taken from the reports of plague-eradication measures from the cities named:

*Los Angeles, Calif.*

Week ended Jan. 2, 1926:

Number of rats trapped.....	1, 928
Number of rats found to be plague infected.....	0
Number of squirrels examined.....	448
Number of squirrels found to be plague infected.....	0
Number of mice trapped.....	2, 340
Number of mice found to be plague infected.....	0

Date of discovery of last plague-infected rodent, Nov. 6, 1925.

Date of last human case, Jan. 15, 1925.

*Oakland, Calif.*

(Including other East Bay communities)

Week ended Jan. 2, 1926:

Number of rats trapped.....	391
Number of rats found to be plague infected.....	0

Totals:

Number of rats trapped Jan. 1, 1925, to Jan. 2, 1926.....	79, 502
Number of rats found to be plague infected.....	21
Number of squirrels examined May 1 to Aug. 1, 1925.....	7, 277
Number of squirrels found to be plague infected.....	0
Number of mice trapped Jan. 1, 1925, to Jan. 2, 1926.....	30, 178

Date of discovery of last plague-infected rat, Mar. 4, 1925.

Date of last human case, Sept. 10, 1919.



**RABIES—MIAMI, FLA.**

A case of rabies was reported during December, 1925, at Miami, Fla. The patient was bitten by a stray dog November 14, 1925, and died December 18.

**SMALLPOX IN INDIANA**

Under date of January 14, 1926, 150 cases of smallpox were reported in Oakland City, Ind. An epidemic of smallpox was also reported in South Bend, Ind., with several deaths.

**GENERAL CURRENT SUMMARY AND WEEKLY REPORTS FROM CITIES**

*Diphtheria.*—For the week ended January 2, 1926, 36 States reported 1,397 cases of diphtheria. For the week ended January 3, 1925, the same States reported 1,652 cases of this disease. One hundred and two cities, situated in all parts of the country and having an aggregate population of about 28,900,000, reported 756 cases of diphtheria for the week ended January 2, 1926. Last year for the corresponding week they reported 854 cases. The estimated expectancy for these cities was 1,086 cases. The estimated expectancy is based on the experience of the last nine years, excluding epidemics.

*Measles.*—Thirty-three States reported 5,529 cases of measles for the week ended January 2, 1926, and 1,561 cases of this disease for the week ended January 3, 1925. One hundred and two cities reported 3,514 cases of measles for the week this year, and 864 cases last year.

*Poliomyelitis.*—The health officers of 36 States reported 27 cases of poliomyelitis for the week ended January 2, 1926. The same States reported 24 cases for the week ended January 3, 1925.

*Scarlet fever.*—Scarlet fever was reported for the week as follows: Thirty-six States—this year, 3,282 cases; last year, 3,436 cases. One hundred and two cities—this year, 1,289 cases; last year, 1,627 cases; estimated expectancy, 1,041 cases.

*Smallpox.*—For the week ended January 2, 1926, 36 States reported 431 cases of smallpox. Last year for the corresponding week they reported 775 cases. One hundred and two cities reported smallpox for the week as follows: 1926, 135 cases; 1925, 238 cases; estimated expectancy, 60 cases. Five deaths from smallpox were reported by these cities for the week this year—1 at South Bend, Ind., and 4 at Los Angeles, Calif.

*Typhoid fever.*—Two hundred and sixty-four cases of typhoid fever were reported for the week ended January 2, 1926, by 35 States. For the corresponding week of 1925 the same States reported 479 cases of this disease. One hundred and two cities reported 56 cases of typhoid fever for the week this year and 204 cases for the corresponding week last year. The estimated expectancy for these cities was 67 cases.

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<i>December, 1925</i>										
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Colorado.....		113	8		30		1	91	4	25
Georgia.....		93	667	62	14	18	2	30	22	61
Indiana.....	3	228	145				2	918		38
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*Influenza and pneumonia.*—Deaths from influenza and pneumonia were reported for the week by 94 cities, with a population of nearly 28,000,000, as follows: 1926, 1,115 deaths; 1925, 1,189.

*City reports for week ended January 2, 1926*

The "estimated expectancy" given for diphtheria, poliomyelitis, scarlet fever, smallpox, and typhoid fever is the result of an attempt to ascertain from previous occurrence how many cases of the disease under consideration may be expected to occur during a certain week in the absence of epidemics. It is based on reports to the Public Health Service during the past nine years. It is in most instances the median number of cases reported in the corresponding week of the preceding years. When the reports include several epidemics or when for other reasons the median is unsatisfactory, the epidemic periods are excluded and the estimated expectancy is the mean number of cases reported for the week during nonepidemic years.

If reports have not been received for the full nine years, data are used for as many years as possible, but no year earlier than 1915 is included. In obtaining the estimated expectancy the figures are smoothed when necessary to avoid abrupt deviations from the usual trend. For some of the diseases given in the table the available data were not sufficient to make it practicable to compute the estimated expectancy.

Division, State, and city	Population July 1, 1923, estimated	Chick- en pox, cases re-ported	Diphtheria		Influenza		Meas- les, cases re-ported	Mumps, cases re-ported	Pneu- monia, deaths re-ported
			Cases, esti- mated expectancy	Cases re-ported	Cases re-ported	Deaths re-ported			
NEW ENGLAND									
Maine:									
Portland .....	73,129	1	2	2	0	0	1	6	2
New Hampshire:									
Concord .....	22,408	0	0	1	0	0	2	0	1
Vermont:									
Barre .....	10,008	0	0	0	0	0	0	0	0
Massachusetts:									
Boston .....	770,400	50	65	22	2	1	172	14	26
Fall River .....	120,912	1	6	6	0	1	130	0	3
Springfield .....	144,227	4	4	1	0	0	7	0	7
Worcester .....	191,927	4	4	10	0	0	186	1	7
Rhode Island:									
Pawtucket .....	68,799	2	3	0	0	0	4	0	9
Providence .....	242,378	0	14	3	0	1	345	0	13
Connecticut:									
Bridgeport .....	143,555	1	9	7	1	0	114	0	7
Hartford .....	138,036	16	8	7	0	1	33	0	11
New Haven .....	172,967	16	3	0	2	1	10	0	3
MIDDLE ATLANTIC									
New York:									
Buffalo .....	536,718	11	29	7	3	0	4	0	25
New York .....	5,927,625	120	219	103	32	12	816	4	210
Rochester .....	317,867	22	8	15	0	1	55	0	5
Syracuse .....	184,511	27	8	3	0	0	11	4	7
New Jersey:									
Camden .....	124,157	24	5	3	1	1	22	1	4
Newark .....	438,699	41	19	11	3	0	60	1	22
Trenton .....	127,390	9	6	1	4	1	0	0	2
Pennsylvania:									
Philadelphia .....	1,022,788	137	75	86	-----	2	124	4	60
Pittsburgh .....	613,442	29	28	20	-----	3	16	3	33
Reading .....	110,917	25	5	1	0	0	0	0	5
EAST NORTH CENTRAL									
Ohio:									
Cincinnati .....	406,312	23	15	4	0	-----	0	0	-----
Cleveland .....	888,519	30	46	41	2	1	616	1	28
Columbus .....	261,082	7	7	4	0	1	21	0	5
Toledo .....	268,338	18	12	8	0	4	25	0	13
Indiana:									
Fort Wayne .....	93,573	3	5	4	0	0	1	0	3
Indianapolis .....	342,718	14	16	11	0	1	69	0	14
South Bend .....	76,709	0	1	1	0	0	0	0	2
Terre Haute .....	68,939	0	3	0	0	0	0	0	2

<sup>1</sup> Population Jan. 1, 1920.

## City reports for week ended January 2, 1926—Continued

Division, State, and city	Population July 1, 1923, estimated	Chicken pox, cases re-ported	Diphtheria		Influenza		Meas-les, cases re-ported	Mumps, cases re-ported	Pneu-monia, deaths re-ported
			Cases, esti-mated expectancy	Cases re-ported	Cases re-ported	Deaths re-ported			
EAST NORTH CENTRAL—continued									
Illinois:									
Chicago.....	2,886,121	66	162	57	3	1	27	5	74
Peoria.....	79,675	4	1	0	0	0	0	1	2
Springfield.....	61,833	1	3	1	0	0	0	5	3
Michigan:									
Detroit.....	1,155,000	37	74	49	2	1	335	5	50
Flint.....	117,968	4	11	3	0	0	5	0	0
Grand Rapids.....	145,947	11	5	0	0	0	3	1	2
Wisconsin:									
Madison.....	42,519	10	2	0	0	0	1	0	0
Milwaukee.....	484,595	66	23	13	5	5	2	7	12
Racine.....	64,393	1	2	1	0	0	1	0	0
Superior.....	139,671	0	1	0	0	0	0	0	2
WEST NORTH CENTRAL									
Minnesota:									
Duluth.....	106,289	6	2	2	0	0	0	0	1
Minneapolis.....	409,125	52	21	15	0	2	8	4	8
St. Paul.....	241,801	14	16	14	0	0	3	0	8
Iowa:									
Davenport.....	61,262	6	1	3	0	—	2	0	—
Sioux City.....	79,662	8	2	0	0	—	0	1	—
Waterloo.....	39,667	4	0	1	0	—	0	—	—
Missouri:									
Kansas City.....	351,819	24	14	4	9	5	14	2	22
St. Joseph.....	78,232	—	4	—	—	—	—	—	—
St. Louis.....	803,853	28	63	42	0	0	4	1	—
North Dakota:									
Fargo.....	24,841	0	0	0	0	0	0	10	0
Grand Forks.....	14,547	0	0	0	0	—	0	0	—
South Dakota:									
Aberdeen.....	15,829	0	0	0	0	—	0	0	—
Sioux Falls.....	29,206	4	1	0	0	0	0	0	0
Nebraska:									
Lincoln.....	58,761	9	2	0	0	0	1	2	1
Omaha.....	204,382	2	6	0	0	0	0	1	12
Kansas:									
Topeka.....	52,555	34	2	0	0	0	1	0	3
Wichita.....	79,261	14	7	0	0	0	0	0	2
SOUTH ATLANTIC									
Delaware:									
Wilmington.....	117,728	2	2	3	0	0	4	0	9
Maryland:									
Baltimore.....	773,580	86	32	14	15	4	218	53	39
Cumberland.....	32,361	0	1	0	1	0	0	0	0
Frederick.....	11,301	0	1	0	0	0	0	1	0
District of Columbia:									
Washington.....	1437,571	19	18	15	4	1	9	0	18
Virginia:									
Lynchburg.....	30,277	13	1	3	0	0	0	0	0
Norfolk.....	159,089	4	3	0	0	0	0	0	4
Richmond.....	181,044	4	8	10	0	1	1	2	8
Roanoke.....	55,502	0	3	4	0	1	0	0	1
West Virginia:									
Charleston.....	45,597	0	1	1	0	0	0	0	4
Wheeling.....	156,208	0	2	3	0	0	1	0	7
North Carolina:									
Raleigh.....	29,171	0	1	2	0	0	0	0	1
Wilmington.....	35,719	1	0	0	0	0	0	0	2
Winston-Salem.....	56,230	0	1	1	0	0	12	0	9
South Carolina:									
Charleston.....	71,245	0	1	5	0	1	0	0	4
Columbia.....	39,688	0	1	1	0	0	0	0	0
Greenville.....	25,789	0	1	1	0	0	0	0	1
Georgia:									
Atlanta.....	222,963	1	4	2	55	2	0	0	22
Brunswick.....	15,937	0	0	0	5	0	0	1	1
Savannah.....	89,448	0	1	0	1	0	0	0	4

1 Population Jan. 1, 1920.

## City reports for week ended January 2, 1926—Continued

Division, State, and city	Population July 1, 1923, estimated	Chick- en pox, cases re- ported	Diphtheria		Influenza		Meas- les, cases re- ported	Mumps, cases re- ported	Pneu- monia, deaths re- ported
			Cases, es- timated ex- pectancy	Cases re- ported	Cases re- ported	Deaths re- ported			
SOUTH ATLANTIC—CON.									
Florida:									
St. Petersburg .....	24,403	0	1	0	0	0	0	0	2
Tampa .....	56,050	1	1	2	0	0	0	0	5
EAST SOUTH CENTRAL									
Kentucky:									
Covington .....	57,877	0	2	0	0	1	0	0	2
Louisville .....	257,671	9	8	9	5	0	4	0	18
Tennessee:									
Memphis .....	170,067	5	7	5	0	0	0	1	7
Nashville .....	121,128	1	4	0	0	3	15	0	7
Alabama:									
Birmingham .....	195,901	7	3	3	1	2	1	0	14
Mobile .....	63,858	2	1	0	1	0	0	5	2
Montgomery .....	45,383	0	1	4	0	0	0	0	0
WEST SOUTH CENTRAL									
Arkansas:									
Fort Smith .....	30,635	1	2	0	0	-----	0	0	-----
Little Rock .....	70,916	0	2	2	0	-----	0	0	6
Louisiana:									
New Orleans .....	404,575	0	14	8	5	5	0	0	16
Shreveport .....	54,590	4	1	3	0	0	0	0	5
Oklahoma:									
Oklahoma City .....	101,150	2	2	4	8	1	1	0	4
Tulsa .....	102,018	1	3	1	0	0	0	0	0
Texas:									
Dallas .....	177,274	9	12	8	1	1	0	6	13
Galveston .....	46,877	0	1	3	0	0	0	0	5
Houston .....	154,970	4	4	9	0	2	0	0	12
San Antonio .....	184,727	1	2	1	0	1	0	0	6
MOUNTAIN									
Montana:									
Billings .....	16,927	7	0	0	0	0	0	2	2
Great Falls .....	27,787	12	1	3	0	0	0	32	0
Helena .....	112,037	0	0	0	0	0	0	1	1
Missoula .....	112,668	0	1	0	0	0	0	0	1
Idaho:									
Boise .....	22,806	0	0	0	0	0	0	1	0
Colorado:									
Denver .....	272,031	36	12	4	0	3	8	2	13
Pueblo .....	43,519	8	4	1	0	0	0	0	1
New Mexico:									
Albuquerque .....	16,648	1	1	0	0	0	0	0	2
Arizona:									
Phoenix .....	33,899	0	-----	0	0	0	0	0	2
Utah:									
Salt Lake City .....	126,241	32	2	4	0	0	1	15	10
Nevada:									
Reno .....	12,429	0	0	0	0	0	0	0	1
PACIFIC									
Washington:									
Seattle .....	1315,685	32	7	4	0	-----	5	16	-----
Spokane .....	104,573	15	5	0	0	-----	0	0	-----
Tacoma .....	101,731	0	3	6	0	0	0	3	2
Oregon:									
Portland .....	273,621	11	7	29	1	0	3	6	16
California:									
Los Angeles .....	666,853	45	36	22	13	2	11	8	22
Sacramento .....	89,950	3	2	0	8	3	0	2	7
San Francisco .....	539,038	27	24	14	11	6	1	4	7

1 Population Jan. 1, 1920.

## City reports for week ended January 2, 1926—Continued

Division, State, and city	Scarlet fever		Smallpox			Tuber- culosis, deaths re- ported	Typhoid fever			Whoop- ing cough, cases re- ported	Deaths, all causes
	Cases, esti- mated expect- ancy	Cases re- ported	Cases, esti- mated expect- ancy	Cases re- ported	Deaths re- ported		Cases, esti- mated expect- ancy	Cases re- ported	Deaths re- ported		
NEW ENGLAND											
Maine:											
Portland.....	2	6	0	0	0	0	1	1	1	2	23
New Hampshire:											
Concord.....	1	0	0	0	0	0	0	0	0	0	17
Vermont:											
Barre.....	1	0	0	0	0	0	0	0	0	0	1
Massachusetts:											
Boston.....	52	86	0	0	0	16	2	1	0	52	273
Fall River.....	3	1	0	0	0	5	1	0	0	3	47
Springfield.....	8	3	0	0	0	1	0	0	0	0	38
Worcester.....	11	9	0	0	0	5	0	0	0	11	61
Rhode Island:											
Pawtucket.....	1	0	0	0	0	0	0	0	0	0	—
Providence.....	8	3	0	0	0	7	0	1	0	4	92
Connecticut:											
Bridgeport.....	6	11	0	0	0	1	0	0	0	9	36
Hartford.....	8	6	0	0	0	0	0	0	1	6	48
New Haven.....	8	2	0	0	0	1	0	0	0	12	50
MIDDLE ATLANTIC											
New York:											
Buffalo.....	24	16	1	2	0	5	1	3	0	13	134
New York.....	166	113	1	0	0	198	11	6	3	26	1,488
Rochester.....	13	14	0	0	0	2	1	1	0	8	72
Syracuse.....	12	2	0	0	0	0	1	0	0	49	43
New Jersey:											
Camden.....	3	9	0	0	0	2	1	0	0	2	39
Newark.....	17	19	0	0	0	7	2	0	0	8	129
Trenton.....	3	4	0	0	0	2	1	0	0	0	41
Pennsylvania:											
Philadelphia.....	55	83	0	0	0	29	3	3	1	24	553
Pittsburgh.....	31	66	0	0	0	10	1	1	0	18	172
Reading.....	1	8	0	0	0	0	0	0	0	4	34
EAST NORTH CENTRAL											
Ohio:											
Cincinnati.....	12	15	1	0	—	—	1	2	—	11	—
Cleveland.....	32	26	1	0	0	15	2	0	0	55	206
Columbus.....	9	15	0	3	0	9	0	2	0	0	89
Toledo.....	15	10	1	0	0	7	0	0	0	11	82
Indiana:											
Fort Wayne.....	2	4	0	0	0	1	1	0	0	0	22
Indianapolis.....	9	3	3	20	0	3	0	0	0	8	101
South Bend.....	4	6	0	7	1	0	0	0	0	0	6
Terre Haute.....	2	6	1	0	0	1	0	0	0	0	28
Illinois:											
Chicago.....	113	120	1	0	0	51	5	5	1	24	749
Peoria.....	6	2	1	1	0	1	0	0	0	5	14
Springfield.....	2	1	1	0	0	1	0	0	0	3	23
Michigan:											
Detroit.....	79	105	3	3	0	20	2	0	0	34	327
Flint.....	8	6	0	0	0	3	0	0	0	34	22
Grand Rapids.....	8	18	1	0	0	0	0	0	0	27	34
Wisconsin:											
Madison.....	3	1	1	0	0	0	0	0	0	2	4
Milwaukee.....	30	20	1	0	0	5	1	0	0	29	113
Racine.....	5	6	0	0	0	0	0	0	0	2	12
Superior.....	2	5	2	0	0	0	0	0	0	0	7
WEST NORTH CENTRAL											
Minnesota:											
Duluth.....	5	18	0	0	0	0	0	0	0	3	23
Minneapolis.....	38	44	7	0	0	5	1	2	0	2	97
St. Paul.....	19	43	5	0	0	2	1	0	0	2	73

<sup>1</sup> Pulmonary tuberculosis only.

## City reports for week ended January 2, 1926—Continued

Division, State, and city	Scarlet fever		Smallpox			Tuber- culo- sis, deaths re- ported	Typhoid fever			Whoop- ing cough, cases re- ported	Deaths, all causes
	Cases, esti- mated expect- ancy	Cases re- ported	Cases, esti- mated expect- ancy	Cases re- ported	Deaths re- ported		Cases, esti- mated expect- ancy	Cases re- ported	Deaths re- ported		
WEST NORTH CENTRAL—continued											
Iowa:											
Davenport.....	1	0	0	0	-----	-----	0	0	-----	0	-----
Sioux City.....	2	1	1	5	-----	-----	0	0	-----	0	-----
Waterloo.....	3	6	0	0	-----	-----	0	0	-----	-----	-----
Missouri:											
Kansas City.....	12	17	0	0	0	3	0	0	0	8	108
St. Joseph.....	2	-----	0	-----	-----	-----	0	-----	-----	-----	-----
St. Louis.....	31	95	1	2	0	6	2	0	0	2	261
North Dakota:											
Fargo.....	2	2	0	0	0	0	0	0	0	0	9
Grand Forks.....	1	0	1	0	-----	-----	0	0	-----	6	-----
South Dakota:											
Aberdeen.....	1	0	0	0	0	0	0	0	0	0	-----
Sioux Falls.....	1	1	0	0	0	0	0	0	0	0	-----
Nebraska:											
Lincoln.....	2	0	0	0	0	0	0	0	0	7	19
Omaha.....	6	18	3	2	0	1	1	0	0	1	64
Kansas:											
Topeka.....	1	4	0	0	0	0	1	1	0	3	14
Wichita.....	3	0	0	0	0	0	0	0	0	0	18
SOUTH ATLANTIC											
Delaware:											
Wilmington.....	3	7	0	0	0	2	0	0	0	2	38
Maryland:											
Baltimore.....	24	20	0	0	0	24	3	3	0	25	255
Cumberland.....	0	0	0	0	0	0	0	0	0	0	7
Frederick.....	0	0	0	0	0	0	0	0	0	0	5
District of Colum- bia:											
Washington.....	20	19	0	0	0	12	4	0	0	4	170
Virginia:											
Lynchburg.....	0	3	0	0	0	2	0	0	0	0	13
Norfolk.....	2	2	0	0	0	2	1	0	0	0	-----
Richmond.....	5	8	0	0	0	2	0	1	0	0	44
Roanoke.....	1	1	0	1	0	0	1	0	0	2	18
West Virginia:											
Charleston.....	1	0	0	0	0	1	0	0	0	0	12
Wheeling.....	1	3	0	0	0	0	0	0	0	0	22
North Carolina:											
Raleigh.....	1	0	1	0	0	0	0	0	0	0	14
Wilmington.....	0	0	0	0	0	2	0	0	0	0	11
Winston-Salem.....	1	3	1	1	0	1	0	0	0	3	24
South Carolina:											
Charleston.....	0	2	0	0	0	3	0	0	0	0	34
Columbia.....	0	0	0	0	0	0	0	0	0	0	-----
Greenville.....	0	0	0	0	0	0	0	0	0	0	8
Georgia:											
Atlanta.....	4	4	1	0	0	6	0	2	0	0	105
Brunswick.....	0	0	0	0	0	0	0	0	0	0	4
Savannah.....	1	0	0	0	0	1	1	0	0	0	28
Florida:											
St. Petersburg.....	0	0	0	0	0	0	0	0	0	0	12
Tampa.....	0	1	0	11	0	4	0	0	0	0	47
EAST SOUTH CENTRAL											
Kentucky:											
Covington.....	2	2	0	0	0	1	0	0	0	0	23
Louisville.....	4	5	0	0	0	8	0	1	0	0	103
Tennessee:											
Memphis.....	4	8	0	3	0	2	1	2	0	0	54
Nashville.....	2	3	1	0	0	3	0	2	1	0	61
Alabama:											
Birmingham.....	4	1	0	11	0	5	1	1	1	5	70
Mobile.....	1	0	1	0	0	0	1	0	0	0	20
Montgomery.....	0	0	0	0	0	0	0	0	0	0	23



## City reports for week ended January 2, 1926—Continued

Division, State, and city	Scarlet fever		Smallpox			Tuber- cul- osis, deaths re- ported	Typhoid fever			Whoop- ing cough, cases re- ported	Deaths, all causes
	Cases, esti- mated expect- ancy	Cases re- ported	Cases, esti- mated expect- ancy	Cases re- ported	Deaths re- ported		Cases, esti- mated expect- ancy	Cases re- ported	Deaths re- ported		
WEST SOUTH CENTRAL											
Arkansas:											
Fort Smith.....	1	0	0	1	-----	-----	0	3	-----	0	-----
Little Rock.....	2	1	0	0	-----	2	0	0	-----	0	-----
Louisiana:											
New Orleans.....	4	8	0	3	0	17	3	6	2	1	173
Shreveport.....	0	2	1	0	0	1	1	0	0	0	39
Oklahoma:											
Oklahoma City.....	2	2	1	0	0	1	0	1	0	0	24
Tulsa.....	2	4	1	0	0	0	0	0	0	5	-----
Texas:											
Dallas.....	3	8	1	0	0	1	1	0	0	15	57
Galveston.....	0	0	0	0	0	0	0	0	0	0	12
Houston.....	2	4	1	1	0	2	0	2	1	0	65
San Antonio.....	1	4	0	0	0	3	0	0	0	0	71
MOUNTAIN											
Montana:											
Billings.....	1	0	0	0	0	0	0	0	0	0	8
Great Falls.....	1	5	1	2	0	0	0	1	0	9	5
Helena.....	0	0	0	0	0	0	0	0	0	1	4
Missoula.....	1	5	0	0	0	0	0	0	0	0	6
Idaho:											
Boise.....	2	2	1	2	0	0	0	0	0	0	4
Colorado:											
Denver.....	10	11	3	0	0	10	0	0	0	21	91
Pueblo.....	3	3	0	0	0	0	0	0	0	0	13
New Mexico:											
Albuquerque.....	0	5	0	0	0	9	0	0	0	4	18
Arizona:											
Phoenix.....	-----	1	-----	0	0	4	-----	0	0	0	11
Utah:											
Salt Lake City.....	3	1	2	0	0	3	0	0	0	9	42
Nevada:											
Reno.....	0	0	0	0	0	0	0	0	0	0	7
PACIFIC											
Washington:											
Seattle.....	7	17	1	2	-----	-----	1	0	-----	0	-----
Spokane.....	5	19	4	0	-----	-----	0	1	-----	0	-----
Tacoma.....	3	0	2	22	0	1	0	0	0	2	32
Oregon:											
Portland.....	7	13	6	4	0	7	0	0	0	0	-----
California:											
Los Angeles.....	18	27	2	27	4	21	3	1	0	3	233
Sacramento.....	2	0	0	4	0	8	0	0	0	0	44
San Francisco.....	13	13	0	0	0	8	1	1	0	5	165

Division, State, and city	Cerebrospinal meningitis		Lethargic encephalitis		Pellagra		Poliomyelitis (infantile paralysis)	
	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases, estimated expectancy	Deaths
<b>NEW ENGLAND</b>								
Maine:								
Portland.....	0	1	0	0	0	0	0	0
Massachusetts:								
Boston.....	2	0	1	0	0	0	0	1
Springfield.....	0	0	0	1	0	0	0	0
Rhode Island:								
Providence.....	1	0	0	0	0	0	0	0

## City reports for week ended January 2, 1926—Continued

Division, State, and city	Cerebrospinal meningitis		Lethargic encephalitis		Pellagra		Polio-myelitis (infantile paralysis)		
	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases, estimated expectancy	Cases	Deaths
MIDDLE ATLANTIC									
New York:									
New York.....	1	1	2	1	0	0	1	2	0
Pennsylvania:									
Philadelphia.....	2	1	0	1	0	0	0	0	0
EAST NORTH CENTRAL									
Ohio:									
Cleveland.....	0	0	0	1	0	0	0	1	0
Illinois:									
Chicago.....	2	2	0	0	0	0	0	1	1
Michigan:									
Detroit.....	0	0	2	2	0	0	0	1	0
SOUTH ATLANTIC									
Maryland:									
Baltimore.....	0	0	1	1	0	0	0	0	0
Virginia:									
Richmond.....	1	0	0	0	0	0	0	0	0
South Carolina:									
Charleston.....	0	0	0	0	0	1	0	0	0
EAST SOUTH CENTRAL									
Alabama:									
Birmingham.....	1	0	0	0	1	0	0	0	0
WEST SOUTH CENTRAL									
Louisiana:									
New Orleans.....	0	0	0	0	1	2	0	0	0
Shreveport.....	0	0	0	0	0	1	0	0	0
Texas:									
Houston.....	0	1	0	0	0	0	0	0	0
MOUNTAIN									
Utah:									
Salt Lake City.....	0	1	0	0	0	0	0	0	0
PACIFIC									
Washington:									
Seattle.....	1	0	0	0	0	0	0	0	0
Spokane.....	2	0	0	0	0	0	0	0	0
Tacoma.....	1	0	0	0	0	0	0	0	0
Oregon:									
Portland.....	1	1	0	0	0	0	0	0	0
California:									
Los Angeles.....	0	0	1	1	0	0	0	0	0
Sacramento.....	0	0	0	0	0	0	0	1	0

The following table gives the rates per 100,000 population for 103 cities for the 10-week period ended January 2, 1926. The population figures used in computing the rates were estimated as of July 1, 1923, as this is the latest date for which estimates are available. The 103 cities reporting cases had an estimated aggregate population of nearly 29,000,000, and the 96 cities reporting deaths had more than 28,000,000 population. The number of cities included in each group and the aggregate populations are shown in a separate table below:

Summary of weekly reports from cities, October 25, 1925, to January 2, 1926—  
Annual rates per 100,000 population <sup>1</sup>

## DIPHTHERIA CASE RATES

	Week ended—									
	Oct. 31	Nov. 7	Nov. 14	Nov. 21	Nov. 28	Dec. 5	Dec. 12	Dec. 19	Dec. 26	Jan. 2
103 cities .....	<sup>2</sup> 182	166	174	181	159	171	164	<sup>3</sup> 163	126	<sup>4</sup> 136
New England.....	137	97	127	144	104	124	107	137	92	147
Middle Atlantic.....	149	126	141	143	150	137	139	147	108	127
East North Central.....	195	187	194	189	162	172	166	161	158	138
West North Central.....	282	267	240	226	178	280	243	180	187	<sup>4</sup> 167
South Atlantic.....	228	211	252	289	221	221	205	205	100	137
East South Central.....	97	137	69	132	120	126	132	97	80	120
West South Central.....	264	199	213	176	181	278	185	<sup>3</sup> 253	134	158
Mountain.....	<sup>2</sup> 176	286	248	315	134	239	172	181	172	115
Pacific.....	157	148	145	186	165	128	200	186	93	133

## MEASLES CASE RATES

103 cities .....	<sup>2</sup> 105	154	174	229	212	353	441	<sup>3</sup> 531	430	<sup>4</sup> 634
New England.....	604	852	937	1,130	827	1,583	2,025	2,159	1,637	2,494
Middle Atlantic.....	110	159	171	256	239	339	453	620	384	561
East North Central.....	57	74	88	103	124	255	307	503	563	790
West North Central.....	12	15	10	15	31	19	25	37	70	<sup>4</sup> 64
South Atlantic.....	59	154	232	289	353	552	576	609	256	502
East South Central.....	17	17	17	51	34	40	23	86	126	114
West South Central.....	<sup>5</sup> 9	9	9	9	5	5	5	<sup>10</sup> 10	9	0
Mountain.....	<sup>20</sup> 38	47	29	10	10	38	29	29	29	86
Pacific.....	15	17	20	32	26	58	55	81	38	49

## SCARLET FEVER CASE RATES

103 cities .....	<sup>2</sup> 160	170	191	175	205	220	231	<sup>3</sup> 240	210	<sup>4</sup> 233
New England.....	201	271	246	209	214	224	194	199	248	316
Middle Atlantic.....	106	111	142	144	149	166	173	190	146	169
East North Central.....	194	167	189	196	220	273	302	300	240	261
West North Central.....	305	384	400	421	454	433	493	471	454	<sup>4</sup> 533
South Atlantic.....	193	185	172	123	144	127	162	164	168	180
East South Central.....	80	108	183	137	183	177	120	126	183	109
West South Central.....	42	192	131	93	139	111	148	<sup>4</sup> 93	102	125
Mountain.....	<sup>3</sup> 195	172	181	162	172	248	162	286	219	258
Pacific.....	148	162	206	107	249	226	194	268	191	220

## SMALLPOX CASE RATES

103 cities .....	<sup>2</sup> 10	10	8	17	16	13	21	<sup>3</sup> 21	18	<sup>4</sup> 24
New England.....	0	0	0	0	0	0	0	0	0	0
Middle Atlantic.....	0	0	0	0	0	0	0	0	0	1
East North Central.....	17	12	13	32	32	14	34	27	20	24
West North Central.....	27	12	4	17	10	19	19	37	21	<sup>4</sup> 19
South Atlantic.....	6	12	6	2	2	4	8	12	10	27
East South Central.....	6	28	34	11	11	11	6	11	0	80
West South Central.....	0	0	0	0	0	14	9	<sup>3</sup> 24	9	23
Mountain.....	<sup>2</sup> 19	19	19	19	10	0	105	38	10	38
Pacific.....	46	49	44	78	99	110	131	119	136	160

<sup>1</sup> The figures given in this table are rates per 100,000 population, annual basis, and not the number of cases reported. Populations used are estimated as of July 1, 1923.

<sup>2</sup> Helena, Mont., not included.

<sup>3</sup> Shreveport, La., not included.

<sup>4</sup> St. Joseph, Mo., not included.

Summary of weekly reports from cities, October 25, 1925, to January 2, 1926 —  
Annual rates per 100,000 population—Continued

## TYPHOID FEVER CASE RATES

	Week ended—									
	Oct. 31	Nov. 7	Nov. 14	Nov. 21	Nov. 28	Dec. 5	Dec. 12	Dec. 19	Dec. 26	Jan. 2
103 cities.....	<sup>2</sup> 26	28	12	17	14	20	20	<sup>3</sup> 16	9	<sup>4</sup> 10
New England.....	17	22	2	32	17	22	22	10	10	7
Middle Atlantic.....	21	12	8	20	14	26	25	17	11	7
East North Central.....	16	19	9	3	4	8	12	11	7	7
West North Central.....	19	31	17	15	8	10	12	15	4	<sup>4</sup> 6
South Atlantic.....	27	64	10	31	29	21	25	18	12	12
East South Central.....	109	183	46	34	23	57	29	29	6	34
West South Central.....	83	51	60	32	32	42	32	<sup>2</sup> 29	9	51
Mountain.....	<sup>2</sup> 88	38	10	19	19	0	19	10	19	19
Pacific.....	20	9	3	6	15	15	15	17	9	9

## INFLUENZA DEATH RATES

	<sup>6</sup> 11	13	12	8	9	12	13	<sup>1</sup> 14	13	<sup>5</sup> 15
96 cities.....										
New England.....	12	5	7	2	12	10	10	15	12	12
Middle Atlantic.....	10	14	14	6	8	10	12	8	9	10
East North Central.....	7	12	10	6	5	7	12	18	8	<sup>6</sup> 8
West North Central.....	11	7	13	2	2	7	7	4	7	<sup>4</sup> 16
South Atlantic.....	6	18	2	14	10	18	8	10	18	21
East South Central.....	29	40	29	46	29	46	51	57	34	31
West South Central.....	41	15	31	10	36	41	46	<sup>3</sup> 38	51	46
Mountain.....	<sup>2</sup> 10	10	0	19	10	19	19	0	29	29
Pacific.....	<sup>7</sup> 4	15	4	19	4	4	4	19	15	42

## PNEUMONIA DEATH RATES

	<sup>1</sup> 122	141	138	151	130	149	131	<sup>1</sup> 153	140	<sup>5</sup> 191
96 cities.....										
New England.....	112	139	137	144	161	186	137	164	171	221
Middle Atlantic.....	137	153	144	160	145	161	132	148	145	149
East North Central.....	119	125	137	146	100	149	121	139	106	<sup>6</sup> 173
West North Central.....	99	88	83	103	83	55	85	136	101	<sup>4</sup> 127
South Atlantic.....	134	207	162	156	144	170	185	213	219	285
East South Central.....	114	166	177	240	194	143	200	234	154	286
West South Central.....	138	163	122	163	158	163	219	<sup>2</sup> 181	183	321
Mountain.....	<sup>1</sup> 78	105	181	229	162	162	181	124	210	277
Pacific.....	<sup>7</sup> 53	95	114	91	102	102	79	102	91	114

<sup>2</sup> Helena, Mont., not included.

<sup>3</sup> Shreveport, La., not included.

<sup>4</sup> St. Joseph, Mo., not included.

<sup>5</sup> Two cities not included.

<sup>6</sup> Cincinnati, Ohio, not included.

<sup>7</sup> Tacoma, Wash., not included.

Number of cities included in summary of weekly reports and aggregate population  
of cities in each group, estimated as of July 1, 1923

Group of cities	Number of cities reporting cases	Number of cities reporting deaths	Aggregate population of cities reporting cases	Aggregate population of cities reporting deaths
Total.....	103	95	28,977,311	28,321,626
New England.....	12	12	2,098,716	2,098,716
Middle Atlantic.....	10	10	10,304,114	10,304,114
East North Central.....	16	10	7,135,899	7,135,899
West North Central.....	14	11	2,515,330	2,381,454
South Atlantic.....	21	21	2,542,493	2,542,498
East South Central.....	7	7	911,885	911,885
West South Central.....	8	6	1,124,561	1,023,013
Mountain.....	9	9	540,445	540,445
Pacific.....	6	4	1,797,830	1,377,572

# FOREIGN AND INSULAR

## THE FAR EAST

*Report for week ended December 19, 1925.*—The following report for the week ended December 19, 1925, was transmitted by the Far Eastern Bureau of the health section of the League of Nations' secretariat, located at Singapore, to the headquarters at Geneva:

Port	Plague		Cholera		Smallpox	
	Cases	Deaths	Cases	Deaths	Cases	Deaths
Calcutta.....	0	0	11	11	4	4
Bombay.....	0	0	0	3	2	2
Madras.....	0	0	18	3	1	1
Rangoon.....	0	0	0	1	0	0
Karachi.....	1	0	0	3	0	0
Negapatam.....	0	0	1	0	0	0
Colombo.....	1	0	0	0	0	0
Basra.....	0	0	0	8	3	3
Singapore.....	0	0	0	0	0	0
Port Swettenham.....	0	0	0	0	0	0
Penang.....	0	0	0	0	0	0
Batavia.....	0	0	0	0	0	0
Serabaya.....	0	0	0	2	2	2
Samarang.....	0	0	0	0	0	0
Belawan Deli.....	0	0	0	0	0	0
Padang (Sumatra).....	0	0	0	0	0	0
Sabang (Rhio).....	0	0	0	0	0	0
Macassar.....	1	1	0	0	0	0
Pontianak (Borneo).....	0	0	0	0	0	0
Sandakan (North Borneo).....	0	0	0	0	0	0
Kuching (Sarawak).....	0	0	0	0	0	0
Manila.....	0	0	3	0	0	0
Zamboanga.....	0	0	0	0	0	0
Bangkok.....	0	0	48	29	0	0
Saigon and Cholon.....	0	0	0	0	0	0
Hongkong.....	0	0	0	0	0	0
Shanghai.....	0	0	0	0	9	9
Amoy.....	0	0	0	0	0	0
Nagasaki.....	0	0	0	0	0	0
Yokohama.....	0	0	0	0	0	0
Simonoseki.....	0	0	0	0	0	0
Moji.....	0	0	0	0	1	0
Kobe.....	0	0	0	0	0	0
Osaka.....	0	0	0	0	1	0
Keelung.....	0	0	0	0	0	0
Fusan.....	0	0	0	0	0	0
Dairen.....	0	0	0	3	2	2
Adelaide.....	0	0	0	0	0	0
Brisbane.....	0	0	0	0	0	0
Fremantle.....	0	0	0	0	0	0
Melbourne.....	0	0	0	0	0	0
Sydney.....	0	0	0	0	0	0
Rockhampton.....	0	0	0	0	0	0
Townsville.....	0	0	0	0	0	0
Port Darwin.....	0	0	0	0	0	0
Broome.....	0	0	0	0	0	0
Port Moresby.....	0	0	0	0	0	0
Honolulu.....	0	0	0	0	0	0
Suez.....	0	0	0	0	0	0
Alexandria.....	0	0	0	0	0	0
Port Said.....	0	0	0	0	0	0
Mombasa (Kenya).....	0	0	0	0	0	0
Zanzibar.....	0	0	0	0	0	0
Massowah.....	0	0	0	0	0	0
Djibuti.....	0	0	0	0	0	0
Lourenco-Marques.....	0	0	0	0	0	0
Durban.....	0	0	0	0	0	0
East London.....	0	0	0	0	0	0
Port Elizabeth.....	0	0	0	0	0	0

Port	Plague		Cholera		Smallpox	
	Cases	Deaths	Cases	Deaths	Cases	Deaths
Cape Town.....	0	0	0	0	0	0
Tamatave.....	1	1	0	0	0	0
Matunga.....	0	0	0	0	0	0
Port Louis (Mauritius).....	1	0	0	0	0	0
Seychelles.....	0	0	0	0	0	0

## CANADA

*Communicable diseases—September 13, 1925, to January 2, 1926.*—The following table shows the numbers of cases of certain communicable diseases in seven Provinces of Canada by four-week periods, from September 13, 1925, to January 2, 1926. The information was supplied by the Canadian Ministry of Health.

	Nova Scotia	New Brunswick	Quebec	Ontario	Manitoba	Saskatchewan	Alberta	Total
<b>Influenza:</b>								
Four weeks ended—								
Oct. 10, 1925.....	6							6
Nov. 7, 1925.....			(1)					
Dec. 5, 1925.....								
Jan. 2, 1926.....								
Total.....	6							6
<b>Smallpox:</b>								
Four weeks ended—								
Oct. 10, 1925.....				21	3	21	2	47
Nov. 7, 1925.....				14	1	3	1	19
Dec. 5, 1925.....			(1)	23	16	8	1	53
Jan. 2, 1926.....		1	1	30	14	9	12	67
Total.....		1	1	93	34	41	16	186
<b>Polio-myelitis:</b>								
Four weeks ended—								
Oct. 10, 1925.....	1	1	4	30	3		1	40
Nov. 7, 1925.....			7	7			8	22
Dec. 5, 1925.....			(1)	4			1	6
Jan. 2, 1926.....								
Total.....	1	1	11	41	3		10	67
<b>Typhoid fever:</b>								
Four weeks ended—								
Oct. 10, 1925.....	8	37	45	122	22	15	17	266
Nov. 7, 1925.....		23	38	100	4	26	18	209
Dec. 5, 1925.....	3	11	(1)	44	14	7	4	83
Jan. 2, 1926.....	2	3	21	51	8	21	5	111
Total.....	13	74	104	317	48	69	44	609
<b>Lethargic encephalitis:</b>								
Four weeks ended—								
Oct. 10, 1925.....				5				5
Nov. 7, 1925.....				1	2			3
Dec. 5, 1925.....				1				1
Jan. 2, 1926.....				4	2			6
Total.....				11	4			15
<b>Cerebrospinal meningitis:</b>								
Four weeks ended—								
Oct. 10, 1925.....			2	3				5
Nov. 7, 1925.....				4			1	6
Dec. 5, 1925.....				1		2		3
Jan. 2, 1926.....			2	2				4
Total.....			4	10		3	1	18

1 No report received.

*Communicable diseases—Ontario Province—December, 1925 (comparative).—*During the month of December, 1925, communicable diseases were reported in the Province of Ontario, Canada, as follows:

Disease	1925		1924		Disease	1925		1924	
	Cases	Deaths	Cases	Deaths		Cases	Deaths	Cases	Deaths
Cerebrospinal meningitis.....	2	—	5	4	Mumps.....	285	—	582	115
Chicken pox.....	597	—	852	—	Pneumonia.....	—	197	—	1
Diphtheria.....	266	25	364	27	Poliomyelitis.....	—	—	6	9
Gorman measles.....	19	—	11	—	Scarlet fever.....	558	13	618	—
Gonorrhea.....	148	—	119	—	Septic sore throat.....	10	—	5	—
Influenza.....	—	31	—	17	Smallpox.....	32	1	33	—
Lethargic encephalitis.....	5	1	10	3	Syphilis.....	74	—	95	—
Measles.....	489	—	1,363	2	Tuberculosis.....	166	62	123	64
					Typhoid fever.....	53	5	85	12
					Whooping cough.....	113	7	279	3

*Smallpox prevalence.*—During the month of December, 1925, smallpox was reported in 15 localities in the Province of Ontario, with 32 cases and 1 death. The greatest number of cases was reported at Asphodel and Rockland, viz, 5 each; at Trenton 4 cases were reported, at Eganville 3; at 4 localities 2 cases each, with 1 death occurring at Atikokan; at 7 localities, 1 case each.

#### CANARY ISLANDS

*Plague—Santa Cruz de Tenerife—December 18, 1925.*—The presence of two new cases of plague at Santa Cruz de Tenerife, Canary Islands, was reported December 18, 1925.

#### CUBA

*Communicable diseases—Habana—November and December, 1925.*—During November and December, 1925, communicable diseases were reported at Habana, Cuba, as follows:

Disease	New cases	Deaths	Remain- ing under treat- ment Nov. 30, 1925	Disease	New cases	Deaths	Remain- ing under treat- ment Nov. 30, 1925
Beri-beri.....	2	—	2	Malaria <sup>1</sup> .....	56	—	14
Cerebrospinal meningitis.....	1	—	1	Measles.....	75	—	28
Chicken pox.....	1	—	—	Scarlet fever.....	16	—	7
Dengue.....	1	—	—	Paratyphoid fever.....	1	—	—
Diphtheria.....	11	—	3	Typhoid fever <sup>1</sup> .....	22	7	14
Leprosy.....	1	—	8				

Disease	New cases	Deaths	Remain- ing under treat- ment Dec. 31, 1925	Disease	New cases	Deaths	Remain- ing under treat- ment Dec. 31, 1925
Chicken pox.....	6	-----	6	Measles.....	43	-----	10
Diphtheria.....	6	1	-----	Paratyphoid fever.....	1	-----	1
Leprosy.....	2	-----	9	Scarlet fever.....	11	-----	6
Malaria <sup>1</sup> .....	59	1	5	Typhoid fever.....	11	3	5

<sup>1</sup> Many of these cases were from the interior.

*Malaria—Santiago.*—During the week ended December 26, 1925, 29 cases of malaria with 1 death were reported at Santiago, Cuba. On January 2, 1926, 203 cases were reported present.

### EGYPT

*Plague—Fayoum—December 3-9, 1925—Summary and comparison with preceding year.*—During the week ended December 9, 1925, a fatal case of septicemic plague was reported in the Province of Fayoum, Egypt. From January 1 to December 9, 1925, there have been reported in Egypt 138 cases of plague as compared with 365 cases reported during the corresponding period of the year 1924.

### ESTHONIA

*Communicable diseases—September-October, 1925.*—During the months of September and October, 1925, communicable diseases were reported in the Republic of Esthonia as follows:

Disease	Septem- ber, 1925— Cases	October, 1925— Cases	Disease	Septem- ber, 1925— Cases	October, 1925— Cases
Diphtheria.....	59	52	Scarlet fever.....	54	101
Leprosy.....	4	2	Tuberculosis.....	129	118
Measles.....	3	1	Typhoid fever.....	62	76
Paratyphoid fever.....	10	-----			

Population, census of 1922, 1,107,059.

### FINLAND

*Communicable diseases—November, 1925.*—During the period November 1 to 30, 1925, 22 cases of diphtheria, 1 case of paratyphoid fever, 39 cases of scarlet fever and 1 case of typhoid fever were reported in the Republic of Finland. Population, census of 1923, 3,469,402.

### GREAT BRITAIN (SCOTLAND)

*Measles—Glasgow.*—During the week ended December 19, 1925, 790 cases of measles with 17 deaths were reported at Glasgow, Scotland. Population, estimated, 1,057,100.



## NICARAGUA

*Epidemic influenza—Managua.*—During the period November 10–30, 1925, influenza in epidemic form was reported present at Managua, Republic of Nicaragua.

## PANAMA

*Care of the insane—School of medicine—Panama.*—Recent information states that a new hospital for the care and treatment of the insane is under construction at Panama, and is expected to be completed in July of the present year. It is also said that the care of the insane and feeble minded is provided for at Corozal, monthly, by government appropriation. The school of medicine to be constructed in connection with the proposed Bolivarian University is expected to be opened in June 1926, on the occasion of the university inauguration ceremonies.

## CHOLERA, PLAGUE, SMALLPOX, AND TYPHUS FEVER

The reports contained in the following tables must not be considered as complete or final as regards either the lists of countries included or the figures for the particular countries for which reports are given.

Reports Received During Week Ended January 22, 1926 <sup>1</sup>

## CHOLERA

Place	Date	Cases	Deaths	Remarks
India.....				Nov. 1-7, 1925: Cases, 1,693; deaths, 964.
Calcutta.....	Nov. 22-23.....	43	42	
Madras.....	Nov. 29-Dec. 5.....	42	15	
Rangoon.....	Nov. 15-21.....	1	1	

## PLAGUE

British East Africa:				
Kenya—				
Kisumu.....	Nov. 22-23.....		1	
Uganda Protectorate.....	September, 1925.....	103	85	
Canary Islands:				
Santa Cruz de Tenerife.....	Dec. 18.....	2		
Ceylon:				
Colombo.....	Nov. 22-23.....	1	1	
Egypt.....				Dec. 3-9, 1925: One fatal case. Jan. 1-Dec. 9, 1925: Cases, 138; corresponding period, 1924, cases, 365.
Fayoum Province.....	Dec. 3-9.....	1	1	Septicemic.
India.....				Nov. 1-7, 1925: Cases, 1,160; deaths, 790.
Madras Presidency.....	Nov. 1-7.....	33	16	
Rangoon.....	Nov. 15-21.....	6	6	
Java:				
Batavia.....	Nov. 21-27.....	29	28	
Djokjakarta.....	Nov. 9.....			Epidemic in one locality.
Soerabaya.....	Nov. 8-14.....	6	7	
Siam:				
Bangkok.....	Nov. 15-21.....	2	2	

## SMALLPOX

Algeria:				
Algiers.....	Nov. 21-30.....	12		
Do.....	Dec. 1-10.....	46		
British East Africa:				
Kenya—				
Mombasa.....	Nov. 15-23.....	9	3	From mainland; Nov. 22-23, 1925, contact cases.
Uganda Protectorate.....	Sept. 1-30.....	7	4	

<sup>1</sup> From medical officers of the Public Health Service, American consuls, and other sources.

**CHOLERA, PLAGUE, SMALLPOX, AND TYPHUS FEVER—Continued****Reports Received During Week Ended January 22, 1926—Continued****SMALLPOX—Continued**

Place	Date	Cases	Deaths	Remarks
Canada.....				Sept. 13, 1925-Jan. 2, 1926: In seven provinces, 186 cases.
Ontario Province.....				December, 1925: Cases, 32; deaths, 1. Occurring in 15 localities.
Toronto.....	Dec. 27-Jan. 2.....	1		
China:				
Foochow.....	Nov. 15-21.....			Present.
Manchuria—				
Dairen.....	Nov. 16-29.....	30	4	
Shanghai.....	Nov. 22-Dec. 5.....	7	10	Cases, foreign; deaths, foreign and native; in international settlement.
Egypt:				
Alexandria.....	Dec. 3-9.....	1	1	
Great Britain:				
England and Wales.....	Dec. 13-19.....	180		
Hull.....	do.....	12		
Newcastle-on-Tyne.....	do.....	2		
Sheffield.....	Dec. 6-12.....	2		
India.....				Nov. 1-7, 1925: Cases, 1,154; deaths, 244.
Bombay.....	Nov. 22-28.....	3	3	
Calcutta.....	do.....	5	4	
Karachi.....	Nov. 29-Dec. 5.....	4	2	
Madras.....	do.....	3	1	
Rangoon.....	Nov. 15-21.....	1		
Iraq:				
Bagdad.....	Nov. 22-Dec. 5.....	9	9	
Java:				
Batavia.....	Nov. 14-27.....	5		Province and city.
Soerabaya.....	Oct. 25-Nov. 14.....	143	27	
Mexico:				
Durango.....	Dec. 1-31.....		1	
Guadalajara.....	Dec. 29-Jan. 4.....		3	
Portugal:				
Lisbon.....	Nov. 29-Dec. 19.....	109		

**TYPHUS FEVER**

Algeria:				
Algiers.....	Nov. 1-30.....	1		
Chile:				
Valparaiso.....	Nov. 29-Dec. 5.....		1	
Mexico:				
Durango.....	Dec. 1-31.....		1	
Guadalajara.....	Dec. 29-Jan. 4.....		1	
Mexico City.....	Dec. 13-19.....	111		Including municipalities in Federal District.
Palestine:				
Jaffa.....	Dec. 1-7.....	1		
Poland.....	Oct. 18-31.....	37	2	
Union of South Africa:				
Cape Province.....	Nov. 8-14.....			Outbreaks in two districts.

**Reports Received from December 26, 1925, to January 15, 1926<sup>1</sup>****CHOLERA**

Place	Date	Cases	Deaths	Remarks
India.....				Oct. 18-31, 1925: Cases, 3,027 deaths, 1,785.
Calcutta.....	Nov. 1-21.....	58	47	
Madras.....	Nov. 15-23.....	3	3	
Rangoon.....	Nov. 8-14.....	2	2	
Japan.....	Aug. 30-Sept. 19.....	121		

<sup>1</sup> From medical officers of the Public Health Service, American consuls, and other sources.

**CHOLERA, PLAGUE, SMALLPOX, AND TYPHUS FEVER—Continued**  
**Reports Received from December 26, 1925, to January 15, 1926—Continued**

**CHOLERA—Continued**

Place	Date	Cases	Deaths	Remarks
Philippine Islands:				
Manila.....	Nov. 9-22.....	4	3	
Province—				
Bulacan.....	Oct. 18-Nov. 7.....	92	64	
Pampanga.....	Nov. 1-7.....	1	1	
Rizal.....	Sept. 27-Oct. 24.....	70	21	
Russia.....	May-June.....	7		
Siam.....				
Bangkok.....	Oct. 4-31.....	60	30	Infection stated to have been imported on vessel.
Do.....	Nov. 1-14.....	48	38	
On vessel.....				
Steamship.....	Oct. 3.....	9		Arrived at Bangkok, Siam; 9 cases in coolie passengers.

**PLAGUE**

Brazil:				
Bahia.....	Nov. 8-14.....	2		
Santos.....	Dec. 8-21.....		2	
Ceylon:				
Colombo.....	Nov. 15-21.....	2	2	
China.....				
Nanking.....	Nov. 15-Dec. 5.....			Prevalent.
Ecuador:				
Guayaquil.....	Nov. 1-Dec. 15.....	15	8	Rats taken, Nov. 1-Dec. 15, 1925: 36,576; rats found infected, 214.
Egypt.....				Jan. 1-Nov. 18, 1925: Cases, 137; Corresponding period, 1924: Cases, 360.
Beni Suef.....	Nov. 18.....	1	1	Including Piræus.
Greece:				
Athens.....	Nov. 1-30.....	18	4	
Patras.....	Nov. 13.....	1		
India.....				Oct. 18-31, 1925: Cases, 2,584; deaths, 1,696.
Karachi.....	Nov. 1-14.....	3	2	
Madras.....	Oct. 25-31.....	42	25	
Rangoon.....	Oct. 25-Nov. 14.....	9	3	
Java:				
Batavia.....	Oct. 21-Nov. 6.....	94	89	Province.
Do.....	Nov. 14-20.....	107	100	Do.
Cheribon.....	Sept. 27-Oct. 17.....		186	
Pekalongan.....	do.....		42	
Soerabaya.....	Oct. 11-24.....	13	13	
Do.....	Oct. 25-Nov. 7.....	8	7	
Tegal.....	Sept. 27-Oct. 17.....	6	6	
Madagascar:				
Province—				
Fort Dauphin.....	Sept. 16-Oct. 15.....	5	2	
Itasy.....	Sept. 16-Oct. 31.....	20	20	
Moramanga.....	do.....	17	17	
Tananarive.....	do.....	174	159	
Town—				
Tamatave (port).....	Sept. 16-30.....	3	2	
Do.....	Oct. 16-31.....	4	4	
Tananarive.....	Sept. 16-30.....	2	2	
Mauritius Island.....	Sept. 20-Oct. 17.....	5	5	
Russia.....	May-June.....	67		
Senegal.....	September, 1925.....	22	12	
Siam.....	Aug. 23-Sept. 5.....	23	20	
Syria:				
Beirut.....	Nov. 11-20.....	1		
Union of South Africa:				
Cape Province.....				
Steynsburg district.....	Nov. 15-21.....	1		Native. On farm.

**SMALLPOX**

Arabia:				
Aden.....	Nov. 29-Dec. 5.....	1		Imported.
Argentina:				
Rosario.....	October, 1925.....		1	
Brazil:				
Rio de Janeiro.....	Nov. 1-28.....	134	72	

**CHOLERA, PLAGUE, SMALLPOX, AND TYPHUS FEVER—Continued****Reports Received from December 26, 1926, to January 15, 1926—Continued****SMALLPOX—Continued**

Place	Date	Cases	Deaths	Remarks
British South Africa: Southern Rhodesia.....	Nov. 13-19.....	1	-----	Native.
Canada: Alberta— Calgary.....	Dec. 13-19.....	1	-----	From Drumbheller, vicinity of Calgary.
Manitoba— Winnipeg.....	.....do.....	2	-----	
New Brunswick— Northumberland.....	Dec. 6-13.....	1	-----	
Ontario— Ottawa.....	Dec. 6-12.....	2	-----	
China: Amoy.....	Oct. 25-Nov. 21.....	-----	-----	Present.
Antung.....	Dec. 7-13.....	1	-----	
Chungking.....	Nov. 15-21.....	-----	-----	Do.
Foochow.....	Nov. 1-14.....	-----	-----	Do.
Hankow.....	Nov. 14-21.....	3	-----	
Manchuria— An-shan.....	Dec. 6-12.....	1	-----	
Dalren.....	Oct. 19-Nov. 15.....	5	4	
Mukden.....	Oct. 24-Nov. 15.....	1	-----	
Tieh-ling.....	.....do.....	2	-----	
Nanking.....	Nov. 21-Dec. 5.....	-----	-----	Do.
Shanghai.....	Oct. 25-Nov. 21.....	6	4	
Swatow.....	Nov. 22-Dec. 5.....	-----	-----	Do.
Tientsin.....	Nov. 1-7.....	1	-----	
France.....	-----	-----	-----	September, 1925: Cases, 25.
Great Britain: England and Wales.....	Nov. 15-Dec. 12.....	432	-----	
Hull.....	Nov. 29-Dec. 12.....	8	-----	
Newcastle-on-Tyne.....	.....do.....	4	-----	
Sheffield.....	Nov. 22-28.....	5	-----	
Greece.....	-----	-----	-----	Oct. 1-31, 1925: Cases, 16.
Athens.....	Nov. 1-30.....	17	1	
India: Bombay.....	Nov. 8-21.....	9	4	
Calcutta.....	.....do.....	10	5	
Karachi.....	Nov. 1-21.....	23	-----	
Madras.....	Nov. 15-28.....	3	1	
Rangoon.....	Oct. 25-31.....	1	-----	
Iraq.....	-----	-----	-----	Sept. 6-19, 1925: Cases, 41; deaths, 24.
Bagdad.....	Nov. 1-14.....	4	4	
Italy: Rome.....	Oct. 12-25.....	1	-----	Aug. 2-Sept. 30, 1925: Cases, 26.
Japan: Taiwan.....	Nov. 11-20.....	1	-----	
Java: Batavia.....	Oct. 24-30.....	1	-----	
Kraksaan.....	Oct. 11-17.....	11	-----	
Malang.....	.....do.....	2	-----	
North Bantam.....	Oct. 4-17.....	4	-----	
Probolingo.....	Oct. 11-17.....	1	-----	
Soerabaya.....	Oct. 11-24.....	158	18	
South Bantam.....	.....do.....	1	-----	
Tegal.....	Oct. 4-10.....	9	1	
Malta.....	November, 1925.....	14	-----	
Mexico: Agua Calientes.....	Dec. 18-26.....	4	2	
Mexico City.....	Nov. 28-Dec. 5.....	1	-----	
Torreón.....	Nov. 1-30.....	-----	15	
Persia: Teheran.....	July 23-Aug. 23.....	-----	68	
Peru: Arequipa.....	Oct. 1-31.....	-----	1	
Portugal: Lisbon.....	Oct. 4-31.....	124	-----	
Do.....	Nov. 18-Dec. 6.....	-----	31	
Do.....	Nov. 14-28.....	70	-----	
Oporto.....	Nov. 22-Dec. 5.....	1	2	
Russia.....	-----	-----	-----	May-June, 1925: Cases, 1,336.
Siam.....	-----	-----	-----	July 12-Sept. 5, 1925: Cases, 21; deaths, 6.

**CHOLERA, PLAGUE, SMALLPOX, AND TYPHUS FEVER—Continued**  
**Reports Received from December 26, 1925, to January 15, 1926—Continued**

**SMALLPOX—Continued**

Place	Date	Cases	Deaths	Remarks
Spain:				
Malaga.....	Nov. 29-Dec. 5.....	-----	2	June 28-Oct. 24, 1925: Cases, 36.
Switzerland:				
Lucerne.....	Oct. 1-31.....	6	-----	
Tunisia:				
Tunis.....	Nov. 21-30.....	2	-----	

**TYPHUS FEVER**

Algeria:				
Algiers.....	October, 1925.....	2	-----	October, 1925. One case.
Argentina:				
Rosario.....	Oct. 1-31.....	1	-----	
China:				
Antung.....	Nov. 29-Dec. 6.....	4	1	
Egypt:				
Port Said.....	Nov. 19-25.....	1	-----	
Finland:				
Greece:				
Athens.....	Nov. 1-30.....	11	2	
Latvia.....	October, 1925.....	2	-----	September, 1925: Cases, 8; deaths, 1. July-August, 1925; deaths, 65.
Lithuania.....				
Mexico:				
Aguascalientes.....	Dec. 14-19.....	1	-----	
Guadalajara.....	Dec. 8-28.....		2	
Mexico City.....	Nov. 22-Dec. 12.....	39	-----	
Torreon.....	November, 1925.....		1	
Palestine:				
Nazareth.....	Nov. 3-9.....	1	-----	
Safad.....	Nov. 24-30.....	1	-----	
Tel-Aviv.....	do.....	1	-----	
Peru:				
Arequipa.....	October, 1925.....	-----	2	
Poland.....	Oct. 11-17.....	17	3	
Rumania.....				July, 1925: Cases, 74; deaths, 9.
Russia.....				May-June, 1925: Cases, 7,609.
Union of South Africa.....				October 1-31, 1925: Cases, 88; deaths, 7 (colored); cases, 7 (European population).
Cape Province.....	Oct. 1-31.....	63	5	Colored.
Natal.....	do.....	1	-----	Do.
Orange Free State.....	do.....	23	1	Do.
Do.....	Nov. 1-7.....	-----	-----	Outbreaks.
Transvaal.....	Oct. 1-31.....	1	1	



T R E A S U R Y   D E P A R T M E N T

# PUBLIC HEALTH REPORTS

ISSUED WEEKLY

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PUBLIC HEALTH SERVICE

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JANUARY 29    -    1926

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SPECIAL ARTICLES

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Typhoid Fever in the United States During 1925  
Abstracts of Court Decisions Relating to Public Health



WASHINGTON  
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1926

# UNITED STATES PUBLIC HEALTH SERVICE

HUGH S. CUMMING, *Surgeon General*

## DIVISION OF SANITARY REPORTS AND STATISTICS

Asst. Surg. Gen. B. J. LLOYD, *Chief of Division*

The PUBLIC HEALTH REPORTS are issued weekly by the United States Public Health Service through its Division of Sanitary Reports and Statistics, pursuant to acts of Congress approved February 15, 1893, and August 14, 1912.

They contain: (1) Current information of the prevalence and geographic distribution of preventable diseases in the United States in so far as data are obtainable, and of cholera, plague, smallpox, typhus fever, yellow fever, and other communicable diseases throughout the world. (2) Articles relating to the cause, prevention, or control of disease. (3) Other pertinent information regarding sanitation and the conservation of the public health.

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# PUBLIC HEALTH REPORTS

VOL. 41

JANUARY 29, 1926

No. 5

## TYPHOID FEVER IN THE UNITED STATES, 1925

Reports from State Health Officers of 41 States for 11 Months of the year 1925

The reports of cases of typhoid fever received from State health officers for 11 months of the year 1925 show a reaction from the general downward trend which has been observed for many years.

Preliminary reports of cases of this disease from the health officers of 41 States, covering the first 11 months of the year 1925, show an increase over the same period in 1924 of 45 per cent. An increase is noted in all the groups of States except New England and the Pacific coast. The increase by quarters is as follows: January to March, 2 per cent; April to June, 58 per cent; July to September, 54 per cent; October and November, 47 per cent.

Some of the apparent increase is undoubtedly due to more nearly complete reporting of cases which has resulted from increased activity of State and local health departments and improvements in methods of securing reports of communicable diseases. This remark applies especially to some of the Southern and Southeastern States.

Final figures for the year will not be received from these States for some time, but, judging from the experience of former years, the final figures will not materially change the results.

It should be borne in mind in considering these figures that the number of cases in 1924 was very low as compared with the number a few years ago.

A comparison of the number of cases of typhoid fever in 1925 with similar figures for some of the States for 1915 and 1916 shows that the 1925 figures are generally lower. Records of cases which are comparable with present records are available for only a few years; but the death rate from typhoid fever in the registration area dropped from 31.3 per 100,000 population in 1900 to 6.7 in 1924. This indicates that the 1925 case rates would appear very low if we could compare them with case rates of 20 years ago.

The following table gives the preliminary reports of cases of typhoid fever for the first 11 months of 1923, 1924, and 1925:

*Cases of typhoid fever reported during 11 months of 1925, by State health officers, compared with similar reports for the years 1923 and 1924*

	First quarter	Second quarter	Third quarter	October and No- vember	Total, 11 months
<b>New England:</b>					
Maine—					
1925.....	46	29	90	75	240
1924.....	35	52	151	80	318
1923.....	37	48	64	48	197
Vermont—					
1925.....	12	4	13	2	31
1924.....	7	4	22	4	37
1923.....	11	13	10	8	42
Massachusetts—					
1925.....	121	104	230	103	558
1924.....	85	110	192	106	493
1923.....	99	136	219	130	590
Rhode Island—					
1925.....	10	14	48	12	84
1924.....	8	8	28	20	64
1923.....	9	5	21	13	48
Connecticut—					
1925.....	40	43	93	59	235
1924.....	25	30	107	43	205
1923.....	21	28	137	82	268
<b>Total—</b>					
1925.....	229	194	474	251	1,148
1924.....	160	204	500	253	1,117
1923.....	177	230	451	287	1,145
<b>Middle Atlantic:</b>					
New York—					
1925.....	584	473	1,065	551	2,673
1924.....	465	554	931	571	2,521
1923.....	308	360	971	468	2,107
New Jersey—					
1925.....	122	80	346	150	698
1924.....	83	89	197	151	520
1923.....	61	110	271	137	579
Pennsylvania—					
1925.....	252	260	1,090	685	2,287
1924.....	306	272	859	491	1,928
1923.....	320	341	940	622	2,241
<b>Total—</b>					
1925.....	958	813	2,501	1,386	5,658
1924.....	854	915	1,087	1,213	4,969
1923.....	698	811	2,191	1,227	4,927
<b>East North Central:</b>					
Ohio—					
1925.....	186	190	918	581	1,875
1924.....	187	216	606	337	1,346
1923.....	143	195	804	410	1,652
Indiana—					
1925.....	96	100	542	244	901
1924.....	86	118	280	201	685
1923.....	36	80	232	138	456
Illinois—					
1925.....	252	252	812	516	1,832
1924.....	272	183	483	300	1,238
1923.....	185	174	652	574	1,585
Michigan—					
1925.....	122	102	336	300	860
1924.....	104	150	280	186	720
1923.....	180	125	343	282	930
Wisconsin—					
1925.....	28	43	96	91	258
1924.....	57	82	64	38	241
1923.....	61	55	97	99	312
<b>Total—</b>					
1925.....	684	696	2,704	1,732	5,816
1924.....	706	749	1,722	1,082	4,259
1923.....	605	629	2,188	1,503	4,925

*Cases of typhoid fever reported during 11 months of 1925, by State health officers, compared with similar reports for the years 1923 and 1924—Continued*

	First quarter	Second quarter	Third quarter	October and No- vember	Total, 11 months
<b>West North Central:</b>					
Minnesota—					
1925.....	66	34	125	80	305
1924.....	70	96	107	43	316
1923.....	47	79	177	107	410
Missouri—					
1925.....	49	85	594	332	1,060
1924.....	67	38	363	180	648
1923.....	44	103	376	173	696
North Dakota—					
1925.....	12	4	36	61	113
1924.....	15	59	20	17	111
1923.....	8	8	54	44	114
South Dakota—					
1925.....	31	9	75	42	157
1924.....	18	14	84	45	161
1923.....	16	20	34	13	83
Nebraska—					
1925.....	19	6	32	19	76
1924.....	7	6	19	11	43
1923.....	14	8	31	8	64
Kansas—					
1925.....	25	73	473	166	737
1924.....	33	76	338	118	570
1923.....	24	78	561	135	798
Total—					
1925.....	202	211	1,335	700	2,448
1924.....	215	289	931	414	1,849
1923.....	163	296	1,286	480	2,165
<b>South Atlantic:</b>					
Delaware—					
1925.....	6	5	45	45	101
1924.....	9	9	24	12	54
1923.....	5	6	45	30	86
Maryland—					
1925.....	98	87	643	363	1,191
1924.....	107	135	478	189	909
1923.....	77	116	617	333	1,137
District of Columbia—					
1925.....	43	21	39	18	121
1924.....	14	12	50	22	98
1923.....	9	21	58	26	114
Virginia—					
1925.....	91	371	965	350	1,783
1924.....	130	255	865	205	1,455
1923.....	94	356	1,126	342	1,918
West Virginia—					
1925.....	247	113	661	485	1,506
1924.....	175	151	426	228	980
1923.....	108	170	633	378	1,289
South Carolina—					
1925.....	18	825	1,119	373	2,335
1924.....	16	153	237	28	434
1923.....	21	135	143	58	357
Georgia—					
1925.....	71	514	1,036	369	1,930
1924.....	32	55	400	102	589
1923.....	47	125	378	75	628
Florida—					
1925.....	120	205	253	111	698
1924.....	128	162	180	98	568
1923.....	152	208	139	60	559
Total—					
1925.....	703	2,141	4,761	2,060	9,665
1924.....	611	932	2,680	884	5,087
1923.....	513	1,137	3,139	1,305	6,094
<b>East South Central:</b>					
Alabama—					
1925.....	158	469	1,142	375	2,144
1924.....	143	200	1,270	360	1,973
1923.....	160	379	1,101	238	1,884

*Cases of typhoid fever reported during 11 months of 1925, by State health officers, compared with similar reports for the years 1923 and 1924—Continued*

	First quarter	Second quarter	Third quarter	October and No- vember	Total, 11 months
<b>East South Central—Continued</b>					
<b>Mississippi—</b>					
1925 .....	340	1,106	2,104	700	4,250
1924 .....	257	362	1,193	517	2,329
1923 .....	145	382	888	229	1,644
<b>Total—</b>					
1925 .....	498	1,575	3,246	1,075	6,394
1924 .....	400	562	2,463	877	4,302
1923 .....	311	761	1,989	467	3,528
<b>West South Central:</b>					
<b>Arkansas—</b>					
1925 .....	114	240	708	249	1,311
1924 .....	110	78	477	219	884
1923 .....	60	75	473	191	799
<b>Louisiana—</b>					
1925 .....	266	613	861	333	2,073
1924 .....	123	227	431	268	1,049
1923 .....	143	246	369	136	894
<b>Oklahoma—</b>					
1925 .....	230	409	1,516	737	2,892
1924 .....	77	87	346	317	827
1923 .....	73	85	333	320	811
<b>Total—</b>					
1925 .....	610	1,262	3,085	1,319	6,276
1924 .....	310	392	1,254	804	2,760
1923 .....	276	406	1,175	647	2,504
<b>Mountain:</b>					
<b>Montana—</b>					
1925 .....	16	22	140	45	223
1924 .....	18	28	45	30	121
1923 .....	15	18	71	47	151
<b>Wyoming—</b>					
1925 .....	41	5	21	25	92
1924 .....	10	7	17	11	45
1923 .....	0	5	32	23	60
<b>Colorado—</b>					
1925 .....	30	33	207	123	393
1924 .....	45	23	115	41	224
1923 .....	21	43	208	117	389
<b>New Mexico—</b>					
1925 .....	20	36	154	174	384
1924 .....	29	39	183	203	454
1923 .....	33	16	166	118	333
<b>Arizona—</b>					
1925 .....	10	30	49	48	137
1924 .....	6	30	41	15	92
1923 .....	7	22	22	17	68
<b>Total—</b>					
1925 .....	117	126	571	415	1,229
1924 .....	108	127	401	300	936
1923 .....	76	104	409	322	1,001
<b>Pacific:</b>					
<b>Washington—</b>					
1925 .....	73	45	162	87	367
1924 .....	54	63	188	89	394
1923 .....	70	75	242	133	520
<b>Oregon—</b>					
1925 .....	34	32	103	50	219
1924 .....	29	45	89	41	204
1923 .....	17	19	63	55	154
<b>California—</b>					
1925 .....	115	163	400	117	795
1924 .....	95	328	352	299	1,074
1923 .....	111	178	312	221	822
<b>Total—</b>					
1925 .....	222	240	665	254	1,381
1924 .....	778	436	629	429	2,272
1923 .....	198	272	617	409	1,496
<b>Grand total—</b>					
1925 .....	4,523	7,258	19,342	9,192	40,015
1924 .....	4,142	4,606	12,547	6,236	27,531
1923 .....	3,067	4,640	13,485	6,647	27,785

## RESOLUTION REGARDING SMALLPOX IN TRIMBLE COUNTY, KY.

In view of an epidemic of smallpox in Trimble County, Ky., the board of health of that county recently passed the following resolution regarding isolation, notification of cases, and vaccination:

Whereas there is at this time existing in the county of Trimble a number of cases of smallpox, most of which are under quarantine at this time: Be it

*Resolved*, That the county board of health instruct the county health officer to see to it, as his official duty, that each person suffering, or thought to be suffering, with smallpox is confined to his respective home or to any other place that he deems advisable for the protection of the county; and

Whereas they further declare that it is the duty of every practicing physician in the county faithfully to report every case of smallpox or suspected case of smallpox to the county health officer promptly upon its recognition; and

Whereas there are other physicians who are accustomed to practice in Trimble County who are residents of the adjacent counties, and it is their duty to report any case of smallpox to the county health officer of Trimble County, and that where there is any question at issue as to what county any such case of smallpox is in, that reports shall be made to both county health officers, with explanation of the question in doubt; be it further

*Resolved*, That the county board of health further instruct the county health officer to promulgate to the county superintendent and the board of education the fact that there is at this time an epidemic of smallpox in this county and further instruct the county health officer to enforce the law in regard to vaccination.

## HEALTH AND SANITATION IN NICARAGUA

The following is an excerpt from a report received through official channels, briefly outlining health and sanitary conditions and health organizations as they exist to-day in Nicaragua:

*General sanitary conditions.*—The general sanitary conditions of the country as a whole are good, relatively speaking, at the present time. There are no major epidemics of any dangerous communicable diseases present anywhere in the country. Yellow fever has not existed here since the epidemic of 1919; smallpox, while occurring occasionally in sporadic cases, is not epidemic anywhere in the country; bubonic plague has never made its appearance in the country; typhoid fever is present, but not epidemic in any of the larger cities (Granada has recently had several cases of typhoid); typhus fever is unknown here; malaria is endemic in all of the coastal regions, but has not been excessively prevalent for more than four years. Measles, chicken pox, whooping cough, and other similar diseases of childhood, are present, and exist in semiepidemic form in several sections. The measles epidemic of last year did tremendous damage, causing hundreds of deaths among the poorly nourished children of the poorer classes. At present, measles is confined to a few sporadic cases in the towns and cities which were infected last year. Influenza is not present in epidemic form, but is probably present. Dengue fever occurs

here. The campaign for the control of disease-bearing mosquitoes which has been carried out in all of the large towns and cities is probably responsible for the small number of dengue fever cases occurring here.

*Sanitary organization and administration.*—Until the 1st of July, 1925, the Republic of Nicaragua did not have a national health organization for the protection of the public health. During the last session of Congress, however, a law was passed authorizing the establishment of a national department of health. This law went into effect on July 1. Dr. Luis Manuel Debayle was appointed head of the new department.

The department automatically assumes charge of all of the work previously carried on under the auspices of the International Health Board. The department of uncinariasis, which was the organization through which the International Health Board cooperated with the Government of Nicaragua in a campaign for the control and eradication of hookworm disease prior to the organization of the health department, has become the division of rural sanitation of the health department, and the work of the former department of uncinariasis will be continued by the new government agency. The diagnostic laboratory organized about three years ago by the cooperative efforts of the International Health Board and the Government of Nicaragua becomes the division of laboratories and research of the health department. In addition, a division of school hygiene and another of sanitation and sanitary engineering have been organized, thus endowing the health department with a personnel adequate for the needs of the country. The division of sanitary engineering is carrying on and extending the antimalarial work which was begun in several of the most highly infected malarial towns of the country during last year as a cooperative campaign financed jointly by the Government of Nicaragua and the International Health Board. Sanitary organization in each of the civil departments of Nicaragua is going forward, such an organization having already been effected in the departments of Managua, Leon, Chinandega, and Rivas.

Adequate measures are taken in the ports to prevent the introduction of epidemic disease from the outside. In fact, the Government is fast remedying the condition which formerly existed here, and is giving the health department full support.

#### NEW REGULATIONS REGARDING THE IMPORTATION OF TRANSFORMED MILK INTO COLOMBIA

The American consul at Barranquilla, Colombia, reports the following new regulations governing the importation of transformed milk, promulgated by the Department of Health of Colombia, to take effect May 15, 1926:



### CONDENSED MILK

Condensed milk which is to be used for the feeding of children must, among other requirements, conform to the following: It must contain a proportion of fat not less than 9 per cent; it must contain no antiseptics nor other foreign substances, excepting cane sugar which may be used as a preservative; and if the milk does not contain cane sugar it must be sterilized in the container.

Condensed milk from which the cream has not been taken must be contained in soldered tins carrying wrappers on which it is stated in Spanish that the cream has not been taken out, and which also give the proportion of fat that the milk contains, the date of canning, and the time limit within which the milk is good for use.

Condensed milk from which the cream has been taken must be canned in the manner above mentioned, and the can must carry a wrapper stating in Spanish, in easily visible letters, that it is without fat at all or in part, and that it must not be used for feeding children except upon a physician's prescription. It must state the date of canning and the time limit within which it is good for use. Milk from which the cream has been taken, if placed on sale for public consumption without fulfilling this requirement, will be confiscated.

### MILK POWDER

Milk in powder form must be placed in soldered tins which carry a wrapper stating in Spanish whether or not the cream has been removed, and if not, the quantity of fat it contains. If the cream has been taken out, it must be stated that the milk powder must not be used for the feeding of children except on a physician's prescription. Whether or not the cream has been removed, the date on which the milk was canned and the time limit during which it is good for use must be stated.

The consuls of Colombia abroad are instructed not to certify any invoice of transformed milk destined to Colombia unless it is accompanied by a certificate stating that the conditions which are required in the exporting country regarding the preparation and consumption of food products have been complied with.

Products which do not fulfill the requirements specified in the above-mentioned regulations will be confiscated in the customs.

It is stated that these regulations have been brought about by the frequent complaints which have been received at the department of health regarding the serious defects in the condensed milk imported into Colombia.

### SOCIAL SERVICE HEALTH WORK IN BOMBAY

According to a recent consular report, the social reform movement among the Hindus, which began in the last century with the purpose of easing the lot of widows, is gathering momentum and increasing its field for relief, which now includes hygiene and sanitation, health education, and medical relief to the needy.

The report cites specifically the work of the Social Service League of Bombay as an example of social welfare societies in Bombay. This league has among its aims the following:

1. The securing of better living and working conditions.
2. The providing of more facilities for education by establishing day and night schools, lecture courses, reading rooms, and libraries.
3. Provision of medical relief.
4. Encouragement of and providing means for wholesome recreation.
5. Promoting sanitation and hygiene—personal, domestic, and public.
6. Combating prostitution and other vices.
7. Rehabilitation of convicts and criminals.

The present work of the league is stated to be—(1) The promotion of education; (2) Sanitary and hygiene work; (3) Medical relief; (4) Encouraging open-air recreation; (5) Social work; (6) Improvement in economic status; (7) Welfare work for factory workers; and (8) Propaganda.

In its report for 1924 the league states, among other activities, that it maintained two charitable dispensaries, three Boy Scout Troops, and four gymnasia; and, at the end of the year, it had under its management nine night schools. It gave 44 stereopticon lectures in various localities, among the subjects of which were sanitation, infant welfare and maternity care, tuberculosis, malaria, and dental hygiene. During the year, 16,739 patients were given dispensary treatment, and milk was supplied to needy women and children.

## ABSTRACTS OF CURRENT PUBLIC HEALTH COURT DECISIONS

*Veneral disease quarantine upheld.*—(California First District Court of Appeal; decided August 26, 1925.) A woman was ordered quarantined at the county hospital by the health officer of the city and county of San Francisco, she having been found, after an examination, to be suffering from gonococcus infection. She sought her release through habeas corpus proceedings, claiming that such detention was unlawful for the reason that the health officer was without authority to control the body of the petitioner, such power residing alone in the State board of health. Section 2979a of the State political code made it the duty of such health officer "to take such measures as may be necessary to prevent the spread of such disease," gonococcus infection being included in the list of diseases named in the section. In denying the application for the writ, the court stated as follows:

While the section [section 2979a of the political code] does not in express terms confer upon the officer in question the right to take possession or control of the body of one so afflicted as it does in the case of State board of health, the isolation of one afflicted with an infectious disease is a reasonable and proper measure to prevent the increase and spread thereof. (Ex parte Fisher, 239 Pac. 1100.)

*Collection of garbage by city held to be governmental function and damages denied injured municipal employee.*—(Arizona Supreme Court; decided October 17, 1925.) The plaintiff was employed by the defendant, the city of Phoenix, in loading and unloading an auto truck used by the city in the collection of garbage. While the truck was hauling garbage, the driver, another city employee, lost control of the machine, due to running at excessive speed and to defective brakes and steering gear. The plaintiff, riding on the truck, was seriously injured in jumping from the truck when the same was about to run into a deep canal. A demurrer, filed on the ground that the city was operating the truck in the exercise of a governmental function, was upheld by the lower court, and the plaintiff appealed. The supreme court affirmed the judgment, the following being a portion of the opinion:

The courts have, therefore, from an early time held that, when acting in its governmental capacity, it had the exemptions of the sovereignty, but while for its quasi private benefit it was subject to the liabilities of an individual. This rule is of such almost universal acceptance in the jurisdictions which have adopted the theory of the exemption of the State that we accept it as the undoubted law of Arizona. The authorities are so united on this point that no extensive citations are necessary. 28 C. J. 1527, 1528, and note.

When, however, we come to the application of the rule, we find the utmost confusion as to where and how the line of demarcation should be drawn. We therefore consider the cases involving negligence occurring in work like that in which plaintiff in this case was engaged, viz, the sanitary service of the city. Almost without exception these hold that such work is governmental in its nature, and that the municipality is not liable. (Jones v. City of Phoenix, 239 Pac. 1030.)

*Claims of county superintendent of public health in connection with alleged smallpox emergency denied.*—(Oklahoma Supreme Court; decided September 15, 1925.) The plaintiff, a county superintendent of public health, brought action against the board of county commissioners to recover for services and expenses in connection with the treatment of smallpox cases, inspections and quarantine, etc. The plaintiff stated that at the time the services were rendered there was a dangerous epidemic of smallpox in the county and that an emergency existed. He contended that section 8680 of the Compiled Statutes, 1921, provided for the work he did and the expenses incurred. The defendant denied the existence of a dangerous epidemic and that an emergency existed, and stated that the amounts appropriated for health work for each of the fiscal years in which the claims were made were exhausted before the claims were made.

and that the said claims were, therefore, illegal and void. The plaintiff admitted that the board of county commissioners had taken no action, by resolution or otherwise, to cooperate with him in the alleged emergency. The judgment of the lower court was for the defendant, which judgment was affirmed by the supreme court. Regarding the construction to be placed upon the provisions of the above-mentioned section 8680, the supreme court stated as follows:

It will be observed that, whatever the emergency on account of the dangerous epidemic, the county superintendent of public health and board of county commissioners are required to act together in formulating such "provisions, rules, and regulations," as may be necessary to prevent the spread of such epidemic, and they are given full power to compel submission to their rules and regulations to stamp out or prevent the spread of such epidemic. The evidence in this case does not show any concert of action on the part of the health official and the county commissioners. Whatever rules and regulations were made were done by the superintendent of health, and the county commissioners passed no resolution and took no action in the matter. Then this section in providing for payment of actual and necessary expenses required that they must be such as are contracted for in discharge of the health official's duties in the emergency. The evidence must show a contractual relation between the parties, there must be rules and regulations agreed upon in fixing the duties of the health officer, and there must be a promise to pay for services and expenses incurred. The evidence fails to show any compliance with the statute in these respects. But we can not see anything mandatory in these provisions of the statute even in case of an emergency. It is discretionary with the county commissioners as to whether they take any action or not even if a dangerous epidemic does exist. If they do act, and with the superintendent of health, make rules and regulations to meet the danger, even then they could not contract for expenses beyond the resources of the county and the constitutional limitations of indebtedness. If within such limits the contract would be legal, otherwise illegal and void.

The plaintiff also contended that his claims came under the head of involuntary indebtedness. Regarding this contention the court said:

We can not see any application of this rule or of these cases to the case at bar or the point in question. In the first place, the county superintendent of public health is not a constitutional officer. The board of health is provided for by the constitution (article 5, section 39), but not county superintendents of health. In the second place, the duties of the county health officer are defined by statute, and the fees are fixed and limited by statute according to the population of the respective counties. Section 8680, *supra*. In the third place, any other compensation is for emergency work in suppressing dangerous epidemics, and this is by contract and not by involuntary responsibility or liability. (*Eckles v. Board of County Com'rs of Hughes County*, 239 Pac. 567.)

*City held liable for deaths caused by drinking polluted water furnished by it.*—(Washington Supreme Court; decided October 13 and October 16, 1925.) Two separate actions, each involving practically the same state of facts, were brought against the city of Everett to recover damages for deaths alleged to have been caused by drinking polluted water furnished by the city. The pollution was apparently due to contaminated river water reaching the city water through a by-pass in

a mill company's plant. In both cases the verdicts were against the city on the ground of negligence, and the judgments rendered upon the verdicts were affirmed by the supreme court. (*Roscoe v. City of Everett*, 239 Pac. 831; *Aronson v. City of Everett*, 239 Pac. 1011.)

## DEATH RATES IN A GROUP OF INSURED PERSONS

### COMPARISON OF PRINCIPAL CAUSES OF DEATH, OCTOBER AND NOVEMBER, 1925, AND NOVEMBER AND YEAR 1924

The accompanying table is taken from the Statistical Bulletin for December, 1925, published by the Metropolitan Life Insurance Co., and presents the mortality experience of the company for November, 1925, as compared with the month of October, 1925, and with November and year 1924. The rates are based on a strength of approximately 16,000,000 industrial policyholders in the United States and Canada.

The November, 1925, death rate for this group of persons (801 per 100,000) is but little higher than the lowest rate ever recorded for this month—796 per 100,000 for November, 1924.

The bulletin contains the following comment:

The record for the month was also satisfactory with respect to most of the important causes of death. Most of the increases recorded, as compared with October, were either small, or were to be expected on account of the seasonal incidence of certain diseases. Pneumonia and influenza are cases in point, and even with these conditions, the November, 1925, rate is low as compared with most other years. The health record for the month was featured, as has been the case with all prior months of 1925, with low rates for all of the principal epidemic diseases of childhood. The excellent record for tuberculosis continues. Every month of the current year has reported a lower death rate than did the corresponding month of 1924. It is now assured, beyond all question, that not only will a new minimal mortality for tuberculosis be recorded in 1925, but that the per cent reduction over the preceding year will be one of the largest year-to-year declines ever recorded.

Heart disease, for some reason, registered quite a rise over November a year ago, and a smaller increase was recorded for Bright's disease. Deaths from diseases associated with pregnancy and childbirth were also more frequent than in October and in November, 1924.

This year's record for typhoid fever, it now appears, will not be so favorable as that for 1924. In 8 of the 11 months that have elapsed, a higher typhoid rate was registered among the industrial policyholders than for the corresponding month of last year. The situation is by no means alarming, as compared with earlier years, but 1925 now appears unlikely to go into public-health history as a year marking improvement for typhoid over its immediate predecessor.

*Death rates (annual basis) for principal causes per 100,000 lives exposed, October and November, 1925, and November and year, 1924*

[Industrial department, Metropolitan Life Insurance Co.]

Cause of death	Rate per 100,000 lives exposed <sup>1</sup>			
	Nov., 1925	Oct., 1925	Nov., 1924	Year 1924
Total, all causes.....	801.8	796.1	793.4	905.2
Typhoid fever.....	5.6	6.9	5.3	4.4
Measles.....	1.7	.7	1.4	7.2
Scarlet fever.....	2.0	2.0	3.7	4.4
Whooping cough.....	3.8	7.1	4.8	7.4
Diphtheria.....	13.8	9.5	13.8	13.1
Influenza.....	13.8	6.6	9.8	10.6
Tuberculosis (all forms).....	78.4	80.0	83.0	104.3
Tuberculosis of respiratory system.....	60.9	70.0	73.3	92.3
Cancer.....	66.2	64.6	67.9	70.2
Diabetes mellitus.....	11.8	13.7	12.0	14.8
Cerebral hemorrhage.....	47.1	43.1	55.6	60.1
Organic diseases of heart.....	119.3	103.6	109.0	124.4
Pneumonia (all forms).....	77.0	52.3	70.6	88.6
Other respiratory diseases.....	11.6	10.0	12.1	13.8
Diarrhea and enteritis.....	20.6	60.6	27.3	32.2
Bright's disease (chronic nephritis).....	62.1	61.5	50.4	65.3
Puerperal state.....	15.1	12.3	12.4	16.8
Suicides.....	6.6	6.8	7.6	7.2
Homicides.....	7.2	6.7	7.9	7.1
Other external causes (excluding suicides and homicides).....	57.6	63.3	59.4	62.5
Traumatism by automobiles.....	17.0	20.8	17.4	15.7
All other causes.....	171.6	183.8	169.8	186.5

<sup>1</sup> All figures include infants insured under one year of age.

## DEATHS DURING WEEK ENDED JANUARY 16, 1926

*Summary of information received by telegraph from industrial insurance companies for week ended January 16, 1926, and corresponding week of 1925. (From the Weekly Health Index, January 19, 1926, issued by the Bureau of the Census, Department of Commerce)*

	Week ended Jan. 16, 1926	Corresponding week, 1925
Policies in force.....	62, 779, 250	58, 396, 301
Number of death claims.....	13, 483	12, 125
Death claims per 1,000 policies in force, annual rate.....	11. 2	10. 8

*Deaths from all causes in certain large cities of the United States during the week ended January 16, 1926, infant mortality, annual death rate, and comparison with corresponding week of 1925. (From the Weekly Health Index, January 19, 1926, issued by the Bureau of the Census, Department of Commerce)*

City	Week ended Jan. 16, 1926		Annual death rate per 1,000 corresponding week 1925	Deaths under 1 year		Infant mortality rate week ended Jan. 16, 1926 <sup>1</sup>
	Total deaths	Death rate <sup>2</sup>		Week ended Jan. 16, 1926	Corresponding week, 1925	
Total (68 cities).....	8,205	14.9	14.2	855	981	69
Akron.....	48			7	4	74
Albany.....	49	21.7	15.0	2	1	42
Atlanta.....	64			1	19	
White.....	32			0		
Colored.....	32	( <sup>3</sup> )		1		
Baltimore.....	309	20.2	18.0	25	34	73
White.....	239			21		75
Colored.....	70	( <sup>3</sup> )		4		65
Birmingham.....	77	19.5	16.7	9	7	
White.....	35			2		
Colored.....	42	( <sup>3</sup> )		7		
Boston.....	251	16.8	16.9	20	47	56
Bridgeport.....	29			8	8	130
Buffalo.....	155	15.0	12.6	19	15	79
Cambridge.....	30	13.1	14.4	5	2	83
Camden.....	31	12.6	13.4	5	3	85
Canton.....	23	11.3	11.3	2	4	44
Chicago.....	781	13.6	11.8	76	106	67
Cincinnati.....	148	18.9	17.6	15	10	93
Cleveland.....	213	11.9	10.2	31	27	80
Columbus.....	64	11.9	13.6	4	10	37
Dallas.....	68	18.3	16.4	10	11	
White.....	53			7		
Colored.....	15	( <sup>3</sup> )		3		
Denver.....	108	20.0	13.6	10	8	
Des Moines.....	34	11.9	8.7	2	3	33
Detroit.....	333	13.9	10.0	62	61	100
Duluth.....	20	9.4	10.4	4	5	94
El Paso.....	32	15.9	25.8	4	5	
Erie.....	40			3	2	57
Fall River.....	46	18.6	14.6	10	3	145
Flint.....	22	8.8	6.4	5	3	83
Fort Worth.....	26	8.9	16.4	7	8	
White.....	22			4		
Colored.....	4	( <sup>3</sup> )		3		
Grand Rapids.....	33	11.2	12.2	1	5	14
Houston.....	60	19.0	19.0	10	7	
White.....	41			7		
Colored.....	19	( <sup>3</sup> )		3		
Indianapolis.....	90	13.1	13.4	9	7	68
White.....	70			8		
Colored.....	14	( <sup>3</sup> )		1		
Jacksonville, Fla.....	38	18.9	17.4	3	2	60
White.....	10			1		
Colored.....	22	( <sup>3</sup> )		2		
Jersey City.....	81	13.4	14.2	7	11	50
Kansas City, Kans.....	32	14.4	18.0	3	9	52
White.....	28			2		42
Colored.....	4	( <sup>3</sup> )		1		131
Kansas City, Mo.....	108	15.3	12.6	14	9	
Los Angeles.....	217			14	21	39
Louisville.....	106	18.3	15.0	6	9	52
White.....	73			4		40
Colored.....	33	( <sup>3</sup> )		2		125
Lowell.....	33	15.6	16.1	5	3	93
Lynn.....	31	15.7	9.1	5	0	126

<sup>1</sup> Annual rate per 1,000 population.

<sup>2</sup> Deaths under 1 year per 1,000 births—an annual rate based on deaths under 1 year for the week and estimated births for 1924. Cities left blank are not in the registration area for births.

<sup>3</sup> Data for 63 cities.

<sup>4</sup> Deaths for week ended Friday, Jan. 15, 1926.

<sup>5</sup> In the cities for which deaths are shown by color, the colored population in 1920 constituted the following percentage of the total population: Atlanta 31, Baltimore 15, Birmingham 39, Dallas 15, Fort Worth 14, Houston 25, Kansas City, Kans., 14, Louisville 17, Memphis 33, Nashville 30, New Orleans 26, Norfolk 38, Richmond 52, and Washington, D. C., 26.

*Deaths from all causes in certain large cities of the United States during the week ended January 16, 1926, infant mortality, annual death rate, and comparison with corresponding week of 1925—Continued*

City	Week ended Jan. 16, 1926		Annual death rate per 1,000 corresponding week 1925	Deaths under 1 year		Infant mortality rate week ended Jan. 16, 1926
	Total deaths	Death rate		Week ended Jan. 16, 1926	Corresponding week, 1925	
Memphis.....	77	23.0	17.0	10	6	—
White.....	43			5		—
Colored.....	34	(5)		5		—
Milwaukee.....	99	10.3	10.1	19	16	88
Minneapolis.....	122	15.0	13.2	22	15	122
Nashville.....	47	18.0	15.7	2	1	—
White.....	23			2		—
Colored.....	24	(5)		0		—
New Bedford.....	25	10.0	8.7	1	2	17
New Haven.....	40	11.7	14.3	3	9	41
New Orleans.....	181	22.8	22.8	22	23	—
White.....	118			10		—
Colored.....	63	(9)		12		—
New York.....	1,556	13.8	14.3	146	172	59
Bronx Borough.....	192	11.5	9.1	17	17	56
Brooklyn Borough.....	500	11.8	12.4	59	63	59
Manhattan Borough.....	676	18.1	19.7	58	72	64
Queens Borough.....	136	9.9	9.8	11	14	50
Richmond Borough.....	52	19.6	23.4	2	6	35
Newark, N. J.....	122	14.1	13.6	9	17	43
Norfolk.....	34			3	4	56
White.....	13			1		30
Colored.....	21	(5)		2		99
Oklahoma City.....	19			1	4	—
Omaha.....	57	14.0	10.3	4	3	42
Paterson.....	46	16.9	10.3	4	5	70
Philadelphia.....	616	16.2	16.0	66	67	88
Pittsburgh.....	194	16.0	18.4	21	32	70
Portland, Oreg.....	73	13.3	11.8	4	6	41
Providence.....	92	17.9	11.9	12	7	100
Richmond.....	61	17.1	20.1	8	10	101
White.....	35			2		39
Colored.....	26	(5)		6		210
Rochester.....	88	14.5	12.3	7	7	56
St. Louis.....	242	15.4	16.3	13	23	—
St. Paul.....	60	12.7	12.3	7	7	62
Salt Lake City.....	27	10.8	11.9	1	6	14
San Antonio.....	60	15.8	22.1	6	13	—
San Diego.....	34	16.7	18.2	1	3	21
San Francisco.....	185	17.3	16.8	10	12	60
Schenectady.....	28	15.7	14.0	1	2	29
Seattle.....	73			1	4	37
Somerville.....	34	17.9	14.2	0	4	0
Spokane.....	20	13.9	8.6	5	0	117
Springfield, Mass.....	38	13.9	11.7	5	5	72
Syracuse.....	45	12.0	13.8	2	2	25
Tacoma.....	26	13.0	15.0	3	2	70
Toledo.....	54	9.8	11.2	7	8	68
Trenton.....	47	18.6	19.1	6	4	100
Utica.....	37	19.0	13.3	3	2	60
Washington, D. C.....	194	20.3	13.9	18	17	102
White.....	129			9		—
Colored.....	65	(9)		9		—
Waterbury.....	32			4	4	86
Wilmington, Del.....	29	12.4	19.2	4	9	94
Worcester.....	59	16.1	13.1	2	8	23
Yonkers.....	15	6.9	11.9	5	5	112
Youngstown.....	32	10.4	14.7	6	5	76

<sup>4</sup>Deaths for week ended Friday, Jan. 15, 1926.

<sup>5</sup>In the cities for which deaths are shown by color, the colored population in 1920 constituted the following percentage of the total population: Atlanta 31, Baltimore 15, Birmingham 39, Dallas 15, Fort Worth 14, Houston 25, Kansas City, Kans., 14, Louisville 17, Memphis 33, Nashville, 30, New Orleans, 28, Norfolk 33, Richmond 32, and Washington, D. C. 25.



# PREVALENCE OF DISEASE

*No health department, State or local, can effectively prevent or control disease without knowledge of when, where, and under what conditions cases are occurring*

## UNITED STATES

### CURRENT WEEKLY STATE REPORTS

These reports are preliminary, and the figures are subject to change when later returns are received by the State health officers

#### Reports for Week Ended January 23, 1926

ALABAMA		Cases	ARKANSAS—continued		Cases
Chicken pox.....	222		Pellagra.....	3	
Diphtheria.....	26		Scarlet fever.....	8	
Influenza.....	183		Smallpox.....	3	
Malaria.....	2		Trachoma.....	1	
Measles.....	10		Tuberculosis.....	6	
Mumps.....	106		Typhoid fever.....	5	
Ophthalmia neonatorum.....	1		Whooping cough.....	14	
Pellagra.....	5				
Pneumonia.....	205				
Scarlet fever.....	25				
Smallpox.....	47				
Trachoma.....	2				
Tuberculosis.....	38				
Typhoid fever.....	7				
Whooping cough.....	22				
ARIZONA			CALIFORNIA		
Cerebrospinal meningitis.....	1		Cerebrospinal meningitis:		
Chicken pox.....	8		Humboldt County.....	1	
Diphtheria.....	4		Los Angeles.....	3	
Measles.....	1		Oakland.....	1	
Mumps.....	6		Richmond.....	1	
Pneumonia.....	2		San Francisco.....	2	
Rabies (in man).....	1		Chicken pox.....	254	
Scarlet fever.....	14		Diphtheria.....	112	
Tuberculosis.....	10		Influenza.....	881	
Typhoid fever.....	1		Measles.....	43	
Whooping cough.....	4		Mumps.....	275	
ARKANSAS			Poliomyelitis—Pasadena.....	1	
Cerebrospinal meningitis.....	1		Scarlet fever.....	156	
Chicken pox.....	8		Smallpox:		
Diphtheria.....	6		Los Angeles.....	44	
Hookworm disease.....	1		Los Angeles County.....	16	
Influenza.....	199		Oakland.....	19	
Malaria.....	12		Scattering.....	16	
Measles.....	2		Typhoid fever.....	11	
Mumps.....	5		Whooping cough.....	48	
			COLORADO		
			Cerebrospinal meningitis.....	1	
			Chicken pox.....	25	
			Diphtheria.....	23	
			Influenza.....	3	
			Measles.....	5	
			Mumps.....	6	
			Pneumonia.....	8	

COLORADO—continued		Cases	IDAHO		Cases
Scabies.....	1		Chicken pox.....	3	
Scarlet fever.....	21		Diphtheria.....	5	
Trachoma.....	1		Pneumonia.....	1	
Tuberculosis.....	17		Scarlet fever.....	85	
Typhoid fever.....	3		Smallpox—Emmett.....	25	
Whooping cough.....	34				
CONNECTICUT			ILLINOIS		
Chicken pox.....	148		Cerebrospinal meningitis—Livingston County.....	1	
Conjunctivitis (infectious).....	25		Diphtheria.....	138	
Diphtheria.....	39		Influenza.....	42	
German measles.....	12		Lethargic encephalitis—Cook County.....	1	
Influenza.....	0		Measles.....	501	
Lethargic encephalitis.....	2		Pneumonia.....	403	
Measles.....	775		Scarlet fever.....	528	
Mumps.....	4		Smallpox:		
Pneumonia (broncho).....	45		Kane County.....	18	
Pneumonia (lobar).....	57		Scattering.....	31	
Scarlet fever.....	65		Tuberculosis.....	258	
Septic sore throat.....	1		Typhoid fever:		
Tuberculosis (all forms).....	21		Pike County.....	15	
Typhoid fever.....	3		Scattering.....	21	
Whooping cough.....	92		Whooping cough.....	206	
DELAWARE			INDIANA		
Chicken pox.....	10		Chicken pox.....	91	
Diphtheria.....	10		Diphtheria.....	26	
Influenza.....	4		Influenza.....	49	
Measles.....	49		Measles.....	136	
Mumps.....	1		Mumps.....	2	
Pneumonia.....	7		Ophthalmia neonatorum.....	2	
Scarlet fever.....	5		Pneumonia.....	15	
Tuberculosis.....	2		Scarlet fever.....	213	
FLORIDA			Smallpox.....	110	
Chicken pox.....	39		Tuberculosis.....	40	
Diphtheria.....	18		Typhoid fever.....	3	
Influenza.....	22		Whooping cough.....	77	
Malaria.....	6		IOWA		
Measles.....	9		Chicken pox.....	63	
Mumps.....	44		Diphtheria.....	27	
Paratyphoid fever.....	1		German measles.....	4	
Pneumonia.....	20		Measles.....	215	
Scarlet fever.....	13		Mumps.....	29	
Smallpox.....	124		Pneumonia.....	9	
Tuberculosis.....	10		Scarlet fever.....	79	
Typhoid fever.....	8		Smallpox.....	80	
Whooping cough.....	10		Tuberculosis.....	19	
GEORGIA			Whooping cough.....	14	
Cerebrospinal meningitis.....	3		KANSAS		
Chicken pox.....	27		Cerebrospinal meningitis:		
Conjunctivitis.....	1		Arkansas City.....	1	
Diphtheria.....	12		Densmore.....	1	
Hookworm disease.....	3		Fort Scott.....	1	
Influenza.....	342		Chicken pox.....	175	
Malaria.....	18		Diphtheria.....	32	
Measles.....	56		German measles.....	3	
Mumps.....	45		Influenza.....	19	
Pellagra.....	2		Measles.....	69	
Pneumonia.....	136		Mumps.....	30	
Scarlet fever.....	12		Pneumonia.....	72	
Septic sore throat.....	3		Scarlet fever.....	101	
Smallpox.....	15		Smallpox.....	3	
Tetanus.....	1		Tetanus.....	1	
Tuberculosis.....	25		Trachoma.....	4	
Typhoid fever.....	11		Tuberculosis.....	42	
Whooping cough.....	4		Typhoid fever.....	5	
			Whooping cough.....	100	

LOUISIANA		Cases	MICHIGAN—continued		Cases
Diphtheria.....	27		Tuberculosis.....	56	
Influenza.....	51		Typhoid fever.....	6	
Leprosy.....	1		Whooping cough.....	257	
Pneumonia.....	62		MINNESOTA		
Poliomyelitis.....	1		Chicken pox.....	161	
Scarlet fever.....	11		Diphtheria.....	58	
Smallpox.....	34		Influenza.....	3	
Tuberculosis.....	27		Measles.....	40	
Typhoid fever.....	14		Pneumonia.....	7	
Whooping cough.....	4		Poliomyelitis.....	1	
MAINE			Scarlet fever.....	357	
Chicken pox.....	28		Smallpox.....	5	
Diphtheria.....	7		Tuberculosis.....	56	
Influenza.....	3		Typhoid fever.....	2	
Measles.....	6		Whooping cough.....	49	
Mumps.....	16		MISSISSIPPI		
Pneumonia.....	30		Cerebrospinal meningitis.....	1	
Scarlet fever.....	31		Diphtheria.....	12	
Septic sore throat.....	1		Scarlet fever.....	12	
Tuberculous meningitis.....	1		Smallpox.....	19	
Whooping cough.....	60		Typhoid fever.....	2	
MARYLAND <sup>1</sup>			MISSOURI		
Diphtheria.....	41		(Exclusive of Kansas City)		
German measles.....	11		Cerebrospinal meningitis.....	1	
Influenza.....	454		Chicken pox.....	56	
Measles.....	1,337		Diphtheria.....	67	
Mumps.....	131		Influenza.....	6	
Ophthalmia neonatorum.....	1		Malaria.....	13	
Pneumonia (broncho).....	111		Measles.....	42	
Pneumonia (lobar).....	132		Mumps.....	9	
Scarlet fever.....	60		Pneumonia.....	8	
Septic sore throat.....	4		Scarlet fever.....	172	
Tuberculosis.....	61		Smallpox.....	4	
Typhoid fever.....	1		Tetanus.....	1	
Whooping cough.....	64		Trachoma.....	6	
MASSACHUSETTS			Tuberculosis.....	34	
Cerebrospinal meningitis.....	3		Typhoid fever.....	2	
Chicken pox.....	274		Whooping cough.....	13	
Conjunctivitis (suppurative).....	18		NEBRASKA		
Diphtheria.....	108		Cerebrospinal meningitis.....	2	
German measles.....	60		Chicken pox.....	19	
Hookworm disease.....	1		Diphtheria.....	10	
Influenza.....	11		German measles.....	1	
Lethargic encephalitis.....	4		Influenza.....	1	
Measles.....	1,601		Measles.....	2	
Mumps.....	67		Mumps.....	8	
Ophthalmia neonatorum.....	12		Pneumonia.....	2	
Pneumonia (lobar).....	168		Scarlet fever.....	40	
Poliomyelitis.....	2		Smallpox.....	14	
Scarlet fever.....	311		Tuberculosis.....	10	
Septic sore throat.....	5		Whooping cough.....	24	
Trachoma.....	3		NEW JERSEY		
Tuberculosis (pulmonary).....	116		Cerebrospinal meningitis.....	1	
Tuberculosis (other forms).....	31		Chicken pox.....	394	
Typhoid fever.....	8		Diphtheria.....	78	
Whooping cough.....	397		Influenza.....	39	
MICHIGAN			Measles.....	1,250	
Diphtheria.....	115		Pneumonia.....	190	
Measles.....	1,253		Poliomyelitis.....	1	
Pneumonia.....	222		Scarlet fever.....	233	
Scarlet fever.....	382		Typhoid fever.....	9	
Smallpox.....	20		Whooping cough.....	77	

<sup>1</sup> Week ended Friday.

NEW MEXICO		Cases	OREGON—continued		Cases
Chicken pox.....		50	Pneumonia.....		12
Diphtheria.....		2	Scarlet fever.....		31
German measles.....		1	Septic sore throat.....		1
Influenza.....		2	Smallpox:		
Malaria.....		1	Bend.....		18
Mumps.....		16	Linn County.....		23
Pneumonia.....		12	Scattering.....		28
Rabies (in animals).....		1	Tuberculosis.....		18
Scarlet fever.....		15	Typhoid fever.....		6
Smallpox.....		1	Whooping cough.....		54
Tuberculosis.....		21			
Typhoid fever.....		3			
Whooping cough.....		21			
NEW YORK			PENNSYLVANIA		
(Exclusive of New York City)			Anthrax—Philadelphia.....		1
Cerebrospinal meningitis.....		3	Cerebrospinal meningitis:		
Diphtheria.....		82	Homer City.....		1
Influenza.....		63	Philadelphia.....		1
Lethargic encephalitis.....		2	Chicken pox.....		1,013
Measles.....		849	Diphtheria.....		301
Pneumonia.....		351	German measles.....		25
Poliomyelitis.....		2	Impetigo contagiosa.....		18
Scarlet fever.....		224	Measles.....		2,888
Typhoid fever.....		35	Mumps.....		173
Whooping cough.....		430	Ophthalmia neonatorum—Philadelphia.....		3
			Pneumonia.....		131
			Poliomyelitis—Philadelphia.....		1
			Scabies.....		15
			Scarlet fever.....		700
			Tetanus—Philadelphia.....		1
			Trachoma—		
			Philadelphia.....		2
			Pittsburgh.....		1
			Tuberculosis.....		80
			Typhoid fever.....		26
			Whooping cough.....		411
NORTH CAROLINA			RHODE ISLAND		
Chicken pox.....		268	Cerebrospinal meningitis—Providence.....		1
Diphtheria.....		80	Chicken pox.....		3
German measles.....		11	Diphtheria.....		9
Measles.....		122	German measles.....		4
Scarlet fever.....		71	Measles.....		488
Septic sore throat.....		3	Mumps.....		4
Smallpox.....		27	Ophthalmia neonatorum.....		1
Whooping cough.....		200	Scarlet fever.....		11
			Tuberculosis.....		5
			Typhoid fever.....		1
			Whooping cough.....		7
OKLAHOMA			SOUTH CAROLINA		
(Exclusive of Tulsa and Oklahoma City)			Dengue.....		3
Cerebrospinal meningitis:			Diphtheria.....		20
Muskogee.....		1	Influenza.....		1,450
Tillman.....		1	Malaria.....		68
Chicken pox.....		27	Measles.....		10
Diphtheria.....		30	Scarlet fever.....		8
Influenza.....		421	Smallpox.....		13
Malaria.....		9	Tuberculosis.....		34
Measles.....		17	Typhoid fever.....		12
Mumps.....		12	Whooping cough.....		87
Pneumonia.....		245			
Poliomyelitis:					
Comanche.....		1			
Pawnee.....		1			
Scarlet fever.....		29			
Smallpox.....		49			
Typhoid fever.....		9			
Whooping cough.....		25			
OREGON			SOUTH DAKOTA		
Cerebrospinal meningitis.....		2	Chicken pox.....		10
Chicken pox.....		22	Diphtheria.....		7
Diphtheria.....		37	Measles.....		1
Influenza.....		62	Mumps.....		76
Measles.....		13	Pneumonia.....		5
Mumps.....		37			
Deaths.....					

SOUTH DAKOTA—continued	Cases
Poliomyelitis.....	1
Scarlet fever.....	123
Smallpox.....	5
Tuberculosis.....	1
Typhoid fever.....	1

TENNESSEE	Cases
Chicken pox.....	52
Diphtheria.....	9
Influenza.....	94
Malaria.....	3
Measles.....	178
Mumps.....	8
Pellagra.....	2
Pneumonia.....	100
Scarlet fever.....	30
Smallpox.....	20
Trachoma.....	1
Tuberculosis.....	39
Typhoid fever.....	4
Whooping cough.....	19

TEXAS	Cases
Chicken pox.....	25
Diphtheria.....	38
Influenza.....	47
Measles.....	4
Mumps.....	5
Pneumonia.....	19
Scarlet fever.....	32
Smallpox.....	59
Tuberculosis.....	27
Whooping cough.....	36

UTAH	Cases
Chicken pox.....	84
Diphtheria.....	12
Influenza.....	116
Jaundice (infectious).....	1
Measles.....	7
Mumps.....	23
Pneumonia.....	24
Scarlet fever.....	16
Smallpox—Provo.....	8
Tuberculosis.....	1
Whooping cough.....	60

VERMONT	Cases
Chicken pox.....	47
Diphtheria.....	2
Measles.....	6
Mumps.....	7
Scarlet fever.....	13
Whooping cough.....	47

VIRGINIA	Cases
Smallpox.....	10

WASHINGTON	Cases
Cerebrospinal meningitis—Thurston County.....	1
Chicken pox.....	109

WASHINGTON—continued	Cases
Diphtheria.....	16
German measles.....	23
Influenza.....	1
Measles.....	12
Mumps.....	111
Scarlet fever.....	92
Smallpox—	
Tacoma.....	32
Scattering.....	72
Tuberculosis.....	13
Typhoid fever.....	1
Whooping cough.....	53

WEST VIRGINIA	Cases
Diphtheria.....	10
Scarlet fever.....	22
Smallpox—Bluefield.....	5
Typhoid fever.....	2

WISCONSIN	Cases
Milwaukee:	
Chicken pox.....	134
Diphtheria.....	37
German measles.....	4
Influenza.....	1
Lethargic encephalitis.....	1
Measles.....	9
Mumps.....	21
Pneumonia.....	15
Scarlet fever.....	24
Tuberculosis.....	13
Whooping cough.....	88
Scattering:	
Chicken pox.....	177
Diphtheria.....	36
German measles.....	5
Influenza.....	29
Measles.....	153
Mumps.....	133
Ophthalmia neonatorum.....	1
Pneumonia.....	23
Scarlet fever.....	171
Smallpox.....	16
Tuberculosis.....	15
Typhoid fever.....	3
Whooping cough.....	94

WYOMING	Cases
Cerebrospinal meningitis—Lincoln.....	1
Chicken pox.....	20
Diphtheria.....	1
Influenza.....	4
Mumps.....	6
Pneumonia.....	2
Scarlet fever.....	25
Smallpox.....	1
Tuberculosis.....	1
Whooping cough.....	14

## Reports for Week Ended January 16, 1926

DISTRICT OF COLUMBIA		Cases	NORTH DAKOTA—continued		Cases
Chicken pox.....	22		Diphtheria.....	5	
Diphtheria.....	26		German measles.....	15	
Influenza.....	6		Measles.....	10	
Measles.....	10		Mumps.....	13	
Pneumonia.....	106		Pneumonia.....	8	
Scarlet fever.....	28		Polio-myelitis.....	1	
Tuberculosis.....	19		Scarlet fever.....	44	
Typhoid fever.....	1		Smallpox.....	1	
Whooping cough.....	3		Typhoid fever.....	2	
NORTH DAKOTA			Whooping cough.....	4	
Chicken pox.....	24				

## SUMMARY OF MONTHLY REPORTS FROM STATES

The following summary of monthly State reports is published weekly and covers only those States from which reports are received during the current week:

State	Cerebro-spinal meningitis	Diphtheria	Influenza	Malaria	Measles	Pellagra	Polio-myelitis	Scarlet fever	Smallpox	Typhoid fever
<i>October, 1925</i>										
Colorado.....		145	3		8		3	47		65
<i>November, 1925</i>										
Idaho.....	6	258	0	0		0	0	39		10
South Carolina.....	1	383	1,574	686	22	1		79	29	135
<i>December, 1925</i>										
Delaware.....		35			35			17	0	3
Florida.....	2	112	76	76	22	23	1	40	64	50
Idaho.....	3	14	0	0		0	0	45		1
Louisiana.....	0	136	115	23	8	17	1	73	121	67
Maryland.....	0	139	119	2	1,184	0	1	226	0	73
Massachusetts.....	13	390	45		5,583		12	988	0	34
Michigan.....		448	37	2	1,215		1	1,385	75	103
Minnesota.....	1	311	2		31	0	5	1,160	29	26
New Jersey.....	7	451	34	2	1,896		5	785	0	46
North Carolina.....	1	255			105		3	285	45	46
Ohio.....	5	617	32	1	4,640		7	1,521	246	74
Vermont.....	0	18	0	0	45	0	3	53	0	3
Wisconsin.....	5	347	60	0	747	0	8	772	55	23

## RECIPROCAL NOTIFICATIONS, DECEMBER, 1925

Notifications regarding communicable diseases sent during the month of December, 1925, to other State health departments by departments of health of certain States

Referred by—	Scarlet fever	Smallpox	Tuberculosis	Typhoid fever
Connecticut.....				1
Illinois.....	2	1	3	3
Minnesota.....		2	24	3

## SMALLPOX AT KEY WEST, FLORIDA

In a report dated January 23, 1926, Surg. Gwyn, in charge of Marine Hospital No. 10, at Key West, Fla., states that a group of smallpox cases appearing in Key West have been traced to a smallpox patient recently arrived from Miami to visit his family.

The report states that the local health officer is undertaking an extensive vaccination campaign among the school children and the general population. At the request of steamship companies, the crews of ferry and passenger vessels are being vaccinated by Surg. Gwyn, who is also vaccinating the local personnel of the Customs Service and the Coast Guard crew.

#### PLAGUE-ERADICATIVE MEASURES IN THE UNITED STATES

The following items were taken from the reports of plague-eradivative measures from the cities named:

##### *Los Angeles, Calif.*

Week ended Jan. 9, 1926:

Number of rats trapped.....	3, 250
Number of rats found to be plague infected.....	0
Number of squirrels examined.....	719
Number of squirrels found to be plague infected.....	0
Number of mice trapped.....	3, 556
Number of mice found to be plague infected.....	0

Date of discovery of last plague-infected rodent, Nov. 6, 1925.

Date of last human case, Jan. 15, 1925.

##### *Oakland, Calif.*

(Including other East Bay communities)

Week ended Jan. 9, 1926:

Number of rats trapped.....	359
Number of rats found to be plague infected.....	0

Totals:

Number of rats trapped Jan. 1, 1925, to Jan. 9, 1926.....	79, 861
Number of rats found to be plague infected.....	21
Number of squirrels examined May 1 to Aug. 1, 1925.....	7, 277
Number of squirrels found to be plague infected.....	0
Number of mice trapped Jan. 1, 1925, to Jan. 9, 1926.....	30, 583

Date of discovery of last plague-infected rat, Mar. 4, 1925.

Date of last human case, Sept. 10, 1919.

#### GENERAL CURRENT SUMMARY AND WEEKLY REPORTS FROM CITIES

*Diphtheria*.—For the week ended January 9, 1926, 36 States reported 1,537 cases of diphtheria. For the week ended January 10, 1925, the same States reported 1,543 cases of this disease. One hundred and one cities, situated in all parts of the country and having an aggregate population of more than 24,000,000, reported 777 cases of diphtheria for the week ended January 9, 1926. Last year for the corresponding week they reported 622 cases. The estimated expectancy for these cities was 979 cases. The estimated expectancy is based on the experience of the last nine years, excluding epidemics.

*Measles*.—Thirty-three States reported 7,157 cases of measles for the week ended January 9, 1926, and 2,166 cases of this disease for the week ended January 10, 1925. One hundred and one cities reported 5,136 cases of measles for the week this year, and 1,096 cases last year.

*Poliomyelitis*.—The health officers of 36 States reported 24 cases of poliomyelitis for the week ended January 9, 1926. The same States reported 22 cases for the week ended January 10, 1925.

*Scarlet fever*.—Scarlet fever was reported for the week as follows: Thirty-six States—this year, 3,721 cases; last year, 3,898 cases. One hundred and one cities—this year, 1,358 cases; last year 1,484 cases; estimated expectancy, 937 cases.

*Smallpox*.—For the week ended January 9, 1926, 36 States reported 600 cases of smallpox. Last year for the corresponding week they reported 895 cases. One hundred and one cities reported smallpox for the week as follows: 1926, 193 cases; 1925, 317 cases, estimated expectancy, 91 cases.

*Typhoid fever*.—Two hundred and sixty-eight cases of typhoid fever were reported for the week ended January 9, 1926, by 35 States. For the corresponding week of 1925, the same States reported 353 cases of this disease. One hundred and one cities reported 54 cases of typhoid fever for the week this year and 114 cases for the corresponding week last year. The estimated expectancy for these cities was 40 cases.

*Influenza and pneumonia*.—Deaths from influenza and pneumonia were reported for the week by 95 cities, with a population of about 24,000,000, as follows: 1926, 1,103 deaths; 1925, 844.



## City reports for week ended January 9, 1926

The "estimated expectancy" given for diphtheria, poliomyelitis, scarlet fever, smallpox, and typhoid fever is the result of an attempt to ascertain from previous occurrence how many cases of the disease under consideration may be expected to occur during a certain week in the absence of epidemics. It is based on reports to the Public Health Service during the past nine years. It is in most instances the median number of cases reported in the corresponding week of the preceding years. When the reports include several epidemics or when for other reasons the median is unsatisfactory, the epidemic periods are excluded and the estimated expectancy is the mean number of cases reported for the week during nonepidemic years.

If reports have not been received for the full nine years, data are used for as many years as possible, but no year earlier than 1916 is included. In obtaining the estimated expectancy, the figures are smoothed when necessary to avoid abrupt deviations from the usual trend. For some of the diseases given in the table the available data were not sufficient to make it practicable to compute the estimated expectancy.

Division, State, and city	Population July 1, 1925, estimated	Chicken pox, cases reported	Diphtheria		Influenza		Measles, cases reported	Mumps, cases reported	Pneumonia, deaths reported
			Cases, estimated expectancy	Cases reported	Cases reported	Deaths reported			
NEW ENGLAND									
Maine:									
Portland.....	75,333	5	2	0	0	0	2	15	3
New Hampshire:									
Concord.....	22,546	0	0	0	0	0	0	0	1
Vermont:									
Barre.....	10,008	0	0	0	0	0	0	0	1
Massachusetts:									
Boston.....	779,620	83	65	33	4	2	200	24	37
Fall River.....	128,993	4	6	6	0	0	185	0	0
Springfield.....	142,065	11	4	0	0	1	13	0	2
Worcester.....	190,757	1	5	8	1	0	288	2	20
Rhode Island:									
Pawtucket.....	69,760	10	2	1	0	0	24	0	3
Providence.....	267,918	0	12	5	0	0	405	0	22
Connecticut:									
Bridgeport.....	(1)	2	9	4	1	1	138	0	4
Hartford.....	160,197	7	8	2	0	0	25	0	8
New Haven.....	178,927	26	5	0	0	0	29	0	3
MIDDLE ATLANTIC									
New York:									
Buffalo.....	538,016		23			2			17
New York.....	5,873,356		223						
Rochester.....	316,786	26	9	10	0	0	51	0	8
Syracuse.....	182,003	20	10	4	0	0	24	34	7
New Jersey:									
Camden.....	128,642	17	6	3	1	0	36	4	10
Newark.....	452,513	118	20	20	4	3	104	3	19
Trenton.....	132,020	5	6	2	3	2	0	0	4
Pennsylvania:									
Philadelphia.....	1,979,364	245	77	88		6	204	14	101
Pittsburgh.....	631,563	64	25	20	0	3	21	1	42
Reading.....	112,707	28	5	1	0	0	0	0	4
EAST NORTH CENTRAL									
Ohio:									
Cincinnati.....	409,333	14	13	24	0	4	4	0	10
Cleveland.....	936,486	67	40	32	3	5	1,298	2	52
Columbus.....	279,836	28	6	10	0	1	10	0	6
Toledo.....	287,380	47	11	3	0	4	66	0	11
Indiana:									
Fort Wayne.....	97,946	4	5	1	0	0	1	0	1
Indianapolis.....	358,819	37	16	3	0	0	168	0	13
South Bend.....	80,091	8	1	4	0	0	1	0	2
Terre Haute.....	71,071	2	1	2	0	1	0	0	3
Illinois:									
Chicago.....	2,995,239	162	143	69	15	4	52	10	89
Peoria.....	81,564	8	2	5	0	0	1	15	5
Springfield.....	63,923	9	3	1	4	0	0	2	6
Michigan:									
Detroit.....	1,245,324	134	73	47	4	1	1,043	8	62
Flint.....	130,316	20	9	6	0	0	3	1	2
Grand Rapids.....	153,698	16	5	2	0	1	1	0	3

<sup>1</sup> No estimate made.

## City reports for week ended January 9, 1926—Continued

Division, State, and city	Population July 1, 1925, estimated	Chick- en pox, cases re- ported	Diphtheria		Influenza		Meas- les, cases re- ported	Mumps, cases re- ported	Pneu- monia, deaths re- ported
			Cases, es- timated ex- pectancy	Cases re- ported	Cases re- ported	Deaths re- ported			
EAST NORTH CENTRAL— continued									
Wisconsin:									
Madison.....	46,385	15	1	0	0	0	3	0	0
Milwaukee.....	509,192	167	22	17	1	1	1	19	14
Racine.....	67,797	10	2	3	0	0	0	0	4
Superior.....	39,671	7	1	1	0	0	0	0	2
WEST NORTH CENTRAL									
Minnesota:									
Duluth.....	110,502	29	2	7	0	0	0	4	5
Minneapolis.....	425,435	52	21	30	0	1	13	1	11
St. Paul.....	246,001	62	16	23	0	0	10	5	12
Iowa:									
Davenport.....	(1)	7	1	0	0	-----	0	0	-----
Des Moines.....	(1)	2	4	6	0	-----	3	0	-----
Sioux City.....	(1)	10	2	0	0	-----	1	1	-----
Waterloo.....	36,771	0	0	1	0	-----	0	4	-----
Missouri:									
Kansas City.....	367,481	57	12	8	3	2	44	1	11
St. Joseph.....	78,342	2	4	1	0	0	0	0	6
St. Louis.....	821,543	36	57	64	1	1	5	3	-----
North Dakota:									
Fargo.....	26,403	8	0	0	0	0	2	33	0
Grand Forks.....	14,811	0	1	0	0	-----	0	0	-----
South Dakota:									
Aberdeen.....	15,036	0	0	0	0	0	0	103	0
Sioux Falls.....	30,127	14	1	0	0	0	0	0	0
Nebraska:									
Lincoln.....	60,941	6	3	0	0	0	1	0	3
Omaha.....	211,768	13	5	5	0	0	0	0	15
Kansas:									
Topeka.....	55,411	21	2	2	0	0	0	0	4
Wichita.....	88,367	9	5	2	0	0	0	0	3
SOUTH ATLANTIC									
Delaware:									
Wilmington.....	122,049	4	2	5	0	0	18	0	7
Maryland:									
Baltimore.....	796,296	146	31	10	34	5	601	138	53
Cumberland.....	33,741	4	1	2	1	0	0	0	2
Frederick.....	12,035	0	1	0	0	0	0	0	0
District of Columbia:									
Washington.....	497,906	28	10	59	5	2	12	0	32
Virginia:									
Lynchburg.....	30,395	28	1	2	0	0	1	3	2
Norfolk.....	(1)	22	3	0	0	0	1	0	8
Richmond.....	186,403	6	7	4	2	0	8	5	6
Roanoke.....	58,208	2	2	1	0	0	0	1	3
West Virginia:									
Charleston.....	49,019	2	1	0	0	0	1	1	2
Huntington.....	63,485	0	1	2	0	0	9	0	3
Wheeling.....	56,208	1	2	4	0	0	0	0	1
North Carolina:									
Raleigh.....	30,371	2	0	0	0	0	0	0	2
Wilmington.....	37,061	9	0	1	0	0	0	0	4
Winston-Salem.....	69,031	4	0	0	0	0	43	0	5
South Carolina:									
Charleston.....	73,125	0	1	0	0	0	0	0	5
Columbia.....	41,225	5	0	0	0	0	0	0	0
Greenville.....	27,311	4	1	0	0	0	0	0	0
Georgia:									
Atlanta.....	(1)	4	4	3	34	1	1	0	6
Brunswick.....	16,809	1	0	0	0	0	0	1	0
Savannah.....	93,134	3	1	3	6	0	0	0	4
Florida:									
St. Petersburg.....	26,847	0	0	0	0	0	0	0	2
Tampa.....	94,743	0	1	1	0	0	0	2	7

1 No estimate made.

## City reports for week ended January 9, 1926—Continued

Division, State, and city	Population July 1, 1925, estimated	Chicken pox, cases re-reported	Diphtheria		Influenza		Measles, cases re-reported	Mumps, cases re-reported	Pneumonia, deaths re-reported
			Cases, estimated expectancy	Cases re-reported	Cases re-reported	Deaths re-reported			
EAST SOUTH CENTRAL									
Kentucky:									
Covington.....	58,309	1	1	0	0	0	0	0	2
Louisville.....	305,935	3	8	3	6	1	8	0	23
Tennessee:									
Memphis.....	174,533	12	7	1	0	6	0	0	13
Nashville.....	136,220	3	2	1	0	3	0	0	9
Alabama:									
Birmingham.....	205,670	14	3	1	15	4	2	2	13
Mobile.....	65,955	9	1	1	2	2	0	0	4
Montgomery.....	46,481	10	1	3	0	0	0	37	0
WEST SOUTH CENTRAL									
Arkansas:									
Fort Smith.....	31,643	5	1	0	0	-----	0	0	-----
Little Rock.....	74,216	0	1	0	1	0	0	0	2
Louisiana:									
New Orleans.....	414,493	2	15	13	12	6	0	0	22
Shreveport.....	57,857	12	1	4	0	0	0	1	4
Oklahoma:									
Oklahoma City.....	(1)	0	2	1	4	0	0	0	5
Tulsa.....	124,478	2	3	1	0	0	0	0	0
Texas:									
Dallas.....	194,450	22	9	7	2	3	0	0	10
Galveston.....	43,375	1	2	0	0	0	0	0	5
Houston.....	164,954	2	4	15	0	0	0	0	17
San Antonio.....	196,069	0	2	5	0	1	0	0	11
MOUNTAIN									
Montana:									
Billings.....	17,971	10	1	0	0	0	0	11	0
Great Falls.....	29,883	12	1	0	0	0	0	69	0
Helena.....	12,037	0	0	0	0	0	0	0	0
Missoula.....	12,668	2	1	5	0	0	0	1	0
Idaho:									
Boise.....	23,042	7	0	0	0	0	0	0	0
Colorado:									
Denver.....	280,911	67	10	7	0	5	5	1	6
Fueblo.....	43,787	3	3	1	0	0	0	0	4
New Mexico:									
Albuquerque.....	21,000	5	0	0	0	0	1	1	1
Arizona:									
Phoenix.....	38,669	0	0	0	0	0	0	0	4
Utah:									
Salt Lake City.....	130,948	73	3	7	0	0	1	21	4
Nevada:									
Reno.....	12,665	0	0	0	0	0	0	0	0
PACIFIC									
Washington:									
Seattle.....	(1)	40	6	2	0	-----	7	111	-----
Spokane.....	108,897	14	4	1	0	-----	0	0	-----
Tacoma.....	104,455	0	3	2	0	0	0	2	2
Oregon:									
Portland.....	282,383	9	9	23	0	0	1	10	8
California:									
Los Angeles.....	(1)	45	39	21	18	3	11	6	34
Sacramento.....	72,260	4	2	1	8	3	0	0	9
San Francisco.....	557,530	61	25	9	41	10	6	5	17

<sup>1</sup> No estimate made.

## City reports for week ended January 9, 1926—Continued

Division, State, and city	Scarlet fever		Smallpox			Tuber- cul- osis, deaths re- ported	Typhoid fever			Whoop- ing cough, cases re- ported	Deaths, all causes
	Cases, esti- mated expect- ancy	Cases re- ported	Cases, esti- mated expect- ancy	Cases re- ported	Deaths re- ported		Cases, esti- mated expect- ancy	Cases re- ported	Deaths re- ported		
NEW ENGLAND											
Maine:											
Portland	2	4	0	0	0	0	0	3	0	9	2
New Hampshire:											
Concord	1	0	0	0	0	1	0	0	0	0	11
Vermont:											
Barre	1	0	0	0	0	0	0	0	0	0	4
Massachusetts:											
Boston	50	78	0	0	0	12	1	7	0	88	240
Fall River	3	3	0	0	0	4	0	1	0	10	33
Springfield	8	4	0	0	0	0	0	0	0	1	37
Worcester	11	8	0	0	0	2	0	0	0	14	68
Rhode Island:											
Pawtucket	1	2	0	0	0	0	0	0	0	7	16
Providence	8	9	0	0	0	2	0	1	0	3	94
Connecticut:											
Bridgeport	6	9	0	0	0	0	0	0	0	10	30
Hartford	8	1	0	0	0	1	0	0	0	5	34
New Haven	9	7	0	0	0	1	0	1	1	6	58
MIDDLE ATLANTIC											
New York:											
Buffalo	24		0		0	7	1		4		168
New York	187		0				12				
Rochester	14	23	0	0	0	3	0	0	0	12	81
Syracuse	13	3	0	0	0	2	0	1	0	44	48
New Jersey:											
Camden	4	15	0	0	0	0	0	0	0	0	41
Newark	20	20	0	0	0	6	0	0	0	22	111
Trenton	3	5	0	0	0	6	0	2	0	0	48
Pennsylvania:											
Philadelphia	60	128	0	0	0	36	4	3	1	29	668
Pittsburgh	33	0	1	0	0	7	2	0	1	0	240
Reading	1	8	0	0	0	1	0	0	0	5	29
EAST NORTH CENTRAL											
Ohio:											
Cincinnati	11	33	1	8	0	6	0	2	0	46	169
Cleveland	36	47	2	2	0	16	2	2	0	84	240
Columbus	9	23	1	8	0	3	0	1	0	1	81
Toledo	16	20	3	0	0	4	0	0	0	4	89
Indiana:											
Fort Wayne	4	2	0	0	0	0	0	0	0	2	29
Indianapolis	10	10	5	37	0	6	0	0	0	44	105
South Bend	4	3	1	13	0	1	0	0	0	2	15
Terre Haute	2	2	0	0	0	0	0	1	0	0	19
Illinois:											
Chicago	137	165	2	1	0	52	4	3	1	52	739
Peoria	6	5	0	0	0	0	0	0	0	8	37
Springfield	2	0	0	0	0	3	0	1	1	3	34
Michigan:											
Detroit	88	128	4	0	0	19	2	5	1	75	314
Flint	9	5	1	0	0	1	0	0	0	41	23
Grand Rapids	11	19	1	2	0	0	1	1	0	33	40
Wisconsin:											
Madison	3	9	1	0	0	0	0	0	0	8	5
Milwaukee	35	33	1	0	0	5	1	0	0	49	138
Racine	5	7	1	0	0	1	0	0	0	14	15
Superior	2	3	2	0	0	0	0	0	0	0	10
WEST NORTH CENTRAL											
Minnesota:											
Duluth	6	23	0	0	0	1	0	1	0	19	24
Minneapolis	43	53	13	0	0	6	0	0	0	6	107
St. Paul	22	43	10	0	0	1	1	0	0	15	69
Iowa:											
Davenport	1	3	1	1			0	0		0	
Des Moines	8	6	2	0			0	0		0	
Sioux City	2	2	1	13			0	0		0	
Waterloo	3	2	1	1			0	0		3	

## City reports for week ended January 9, 1926—Continued

Division, State, and city	Scarlet fever		Smallpox			Tuber- culosis, deaths re- ported	Typhoid fever			Whoop- ing cough, cases re- ported	Deaths, all causes
	Cases, esti- mated expect- ancy	Cases re- ported	Cases, esti- mated expect- ancy	Cases re- ported	Deaths re- ported		Cases, esti- mated expect- ancy	Cases re- ported	Deaths re- ported		
WEST NORTH CENTRAL—contd.											
Missouri:											
Kansas City.....	14	22	1	0	0	7	0	0	0	12	88
St Joseph.....	3	1	1	0	0	0	0	0	0	1	29
St. Louis.....	35	109	2	1	0	10	2	0	0	4	228
North Dakota:											
Fargo.....	2	5	1	0	0	0	0	0	0	7	
Grand Forks....	1	0	0	0			0	0		0	
South Dakota:											
Aberdeen.....	0	5	0	0	0	0	0	0	0	0	
Sioux Falls.....	1	4	0	2	0	0	0	0	0	0	
Nebraska:											
Lincoln.....	2	7	0	0	0	0	0	0	0	5	14
Omaha.....	5	20	4	15	0	4	0	0	0	7	58
Kansas:											
Topeka.....	2	7	0	0	0	0	0	0	0	10	15
Wichita.....	4	2	0	1	0	2	0	0	0	1	31
SOUTH ATLANTIC											
Delaware:											
Wilmington.....	3	5	0	0	0	2	0	0	0	2	34
Maryland:											
Baltimore.....	30	21	0	0	0	13	2	2	0	40	270
Cumberland.....	1	0	0	0	0	0	0	2	0	0	9
Frederick.....	0	0	0	0	0	0	0	0	0	0	5
District of Colum- bia:											
Washington....	22	25	0	0	0	8	2	0	0	7	178
Virginia:											
Lynchburg.....	0	3	0	0	0	1	0	0	0	4	13
Norfolk.....	1	8	0	0	0	3	0	0	0	0	
Richmond.....	5	5	0	0	0	7	1	0	0	0	64
Roanoke.....	1	1	0	1	0	2	0	0	0	2	27
West Virginia:											
Charleston.....	1	0	1	0	0	1	0	0	0	8	27
Huntington.....	1	1	1	0	0	0	0	0	0	0	24
Wheeling.....	1	1	0	0	0	0	0	0	0	2	17
North Carolina:											
Raleigh.....	1	1	0	0	0	0	0	0	0	0	
Wilmington.....	1	0	0	0	0	1	0	0	0	0	14
Winston-Salem...	1	3	1	8	0	2	0	0	0	4	21
South Carolina:											
Charleston.....	0	2	0	0	0	0	1	0	0	0	26
Columbia.....	0	1	1	0	0	0	0	0	0	8	
Greenville.....	0	0	0	0	0	0	0	0	0	0	6
Georgia:											
Atlanta.....	3	4	2	0	0	1	0	1	0	0	63
Brunswick.....	0	0	0	0	0	0	0	0	0	0	2
Savannah.....	1	1	0	0	0	4	1	0	0	0	34
Florida:											
St. Petersburg..	1	0	0	0	0	0	0	0	0	0	13
Tampa.....	0	3	0	14	0	3	1	0	1	0	45
EAST SOUTH CEN- TRAL											
Kentucky:											
Covington.....	1	1	0	0	0	1	0	0	0	0	23
Louisville.....	5	3	1	0	0	2	1	1	0	0	86
Tennessee:											
Memphis.....	4	9	1	0	0	6	1	1	0	1	70
Nashville.....	2	2	0	0	0	1	0	1	1	2	48
Alabama:											
Birmingham...	4	6	1	9	0	1	1	0	0	10	98
Mobile.....	0	2	0	0	0	2	0	0	0	0	21
Montgomery...	1	0	0	0	0	0	0	0	0	1	13

## City reports for week ended January 9, 1926—Continued

Division, State, and city	Scarlet fever		Smallpox			Tuber- culo- sis, deaths re- ported	Typhoid fever			Whoop- ing cough, cases re- ported	Deaths, all causes
	Cases, esti- mated expect- ancy	Cases re- ported	Cases, esti- mated expect- ancy	Cases re- ported	Deaths re- ported		Cases, esti- mated expect- ancy	Cases re- ported	Deaths re- ported		
WEST SOUTH CENTRAL											
Arkansas:											
Fort Smith.....	1	1	0	0	-----	-----	0	0	-----	0	-----
Little Rock.....	2	3	0	0	-----	-----	0	0	-----	0	-----
Louisiana:											
New Orleans.....	4	6	0	4	0	20	3	4	0	6	181
Shreveport.....	0	4	3	0	0	1	0	1	0	2	30
Oklahoma:											
Oklahoma City.....	2	4	1	0	0	1	0	0	0	0	28
Tulsa.....	2	1	1	0	0	0	0	0	0	0	-----
Texas:											
Dallas.....	3	9	2	0	0	3	0	0	0	8	56
Galveston.....	0	0	0	2	0	1	0	0	0	0	24
Houston.....	2	2	0	6	0	6	0	0	0	0	73
San Antonio.....	0	1	0	0	0	8	0	0	0	0	56
MOUNTAIN											
Montana:											
Billings.....	2	0	0	0	0	1	0	0	0	1	4
Great Falls.....	1	4	1	2	0	1	0	0	0	1	9
Helena.....	0	1	0	0	0	2	0	0	0	0	7
Missoula.....	0	1	0	1	0	0	0	0	0	0	5
Idaho:											
Boise.....	2	0	0	1	0	0	0	0	0	0	8
Colorado:											
Denver.....	9	13	3	0	0	10	0	0	1	21	74
Pueblo.....	2	3	0	0	0	1	0	0	0	1	15
New Mexico:											
Albuquerque.....	1	7	0	0	0	4	0	0	0	2	13
Arizona:											
Phoenix.....	0	0	0	0	0	8	0	0	0	0	30
Utah:											
Salt Lake City.....	4	4	3	0	0	2	0	1	0	19	33
Nevada:											
Reno.....	1	0	0	0	0	0	0	0	0	0	5
PACIFIC											
Washington:											
Seattle.....	9	21	2	2	-----	-----	1	1	-----	4	-----
Spokane.....	4	20	5	0	-----	-----	1	0	-----	7	-----
Tacoma.....	3	2	2	4	0	1	0	0	0	0	28
Oregon:											
Portland.....	7	25	8	3	0	0	1	1	0	2	-----
California:											
Los Angeles.....	17	26	2	26	1	28	2	3	1	3	285
Sacramento.....	2	1	1	9	0	3	1	0	0	0	35
San Francisco.....	13	20	1	0	0	24	1	0	0	2	234

## City reports for week ended January 9, 1926—Continued

Division, State, and city	Cerebrospinal meningitis		Lethargic encephalitis		Pellagra		Poliomyelitis (infantile paralysis)		
	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases, estimated expectancy	Cases	Deaths
NEW ENGLAND									
Massachusetts:									
Boston.....	3	1	0	0	0	0	0	0	0
Fall River.....	1	0	0	0	0	0	0	0	0
MIDDLE ATLANTIC									
New Jersey:									
Newark.....	1	0	0	0	0	0	0	0	0
Pennsylvania:									
Philadelphia.....	0	0	1	0	0	0	0	0	0
EAST NORTH CENTRAL									
Ohio:									
Cleveland.....	0	0	0	0	0	0	0	1	0
Illinois:									
Chicago.....	1	1	0	0	0	0	0	1	0
Michigan:									
Detroit.....	0	0	1	0	0	0	0	0	0
WEST NORTH CENTRAL									
North Dakota:									
Fargo.....	0	0	0	0	0	0	0	1	1
SOUTH ATLANTIC									
Maryland:									
Baltimore.....	0	0	2	2	0	0	0	0	0
Virginia:									
Richmond.....	0	0	0	0	0	0	0	1	0
Georgia:									
Atlanta.....	0	0	0	0	0	1	0	0	0
Savannah.....	0	0	0	0	0	1	0	0	0
EAST SOUTH CENTRAL									
Tennessee:									
Memphis.....	0	0	0	0	0	1	0	0	
Alabama:									
Mobile.....	0	0	0	0	0	1	0	0	0
WEST SOUTH CENTRAL									
Arkansas:									
Little Rock.....	0	0	0	0	0	1	0	0	0
Louisiana:									
New Orleans.....	0	0	0	0	2	1	0	0	0
Texas:									
Dallas.....	0	0	0	0	0	2	0	0	0
MOUNTAIN									
New Mexico:									
Albuquerque.....	0	0	0	0	0	0	0	1	0
Arizona:									
Phoenix.....	0	0	0	0	1	1	0	0	0
Utah:									
Salt Lake City.....	2	1	0	0	0	0	0	0	0
PACIFIC									
Washington:									
Seattle.....	1	0	0	0	0	0	0	0	0
California:									
Los Angeles.....	1	0	0	0	1	1	0	0	0
San Francisco.....	1	0	0	0	0	0	0	0	0

The following table gives the rates per 100,000 population for 103 cities for the two-week period ended January 9, 1926, compared with those for a like period ended January 10, 1925. The population figures used in computing the rates are approximate estimates as of July 1, 1925 and 1926, respectively, authoritative figures for many of the cities not being available now. The 103 cities reporting cases had an estimated aggregate population of nearly 30,000,000 in 1925 and nearly 30,500,000 in 1926. The 96 cities reporting deaths had more than 29,250,000 estimated population in 1925 and more than 29,750,000 in 1926. The number of cities included in each group and the estimated aggregate populations are shown in a separate table below.

*Summary of weekly reports from cities, December 27, 1925, to January 9, 1926—Annual rates per 100,000 population—Compared with rates for the corresponding period of 1924-25*<sup>1</sup>

## CASE RATES

	Diphtheria				Scarlet fever			
	Week ended—				Week ended—			
	Jan. 3, 1925	Jan. 2, 1926	Jan. 10, 1925	Jan. 9, 1926	Jan. 3, 1925	Jan. 2, 1926	Jan. 10, 1925	Jan. 9, 1926
103 cities.....	149	120	145	<sup>2</sup> 168	284	221	307	<sup>2</sup> 294
New England.....	249	139	247	139	587	300	637	295
Middle Atlantic.....	140	124	130	<sup>2</sup> 190	285	166	323	<sup>2</sup> 259
East North Central.....	141	129	122	151	227	243	166	330
West North Central.....	171	154	139	283	549	493	733	580
South Atlantic.....	138	126	161	178	192	137	148	158
East South Central.....	84	100	110	52	158	99	210	119
West South Central.....	141	146	137	189	79	120	141	112
Mountain.....	102	109	231	182	157	246	370	237
Pacific.....	160	124	185	97	155	205	180	243

	Smallpox				Typhoid fever			
	Week ended—				Week ended—			
	Jan. 3, 1925	Jan. 2, 1926	Jan. 10, 1925	Jan. 9, 1926	Jan. 3, 1925	Jan. 2, 1926	Jan. 10, 1925	Jan. 9, 1926
103 cities.....	41	23	55	<sup>2</sup> 42	36	10	32	<sup>2</sup> 12
New England.....	0	0	0	0	24	7	14	31
Middle Atlantic.....	3	1	3	<sup>2</sup> 0	58	7	49	<sup>2</sup> 8
East North Central.....	25	22	38	48	26	6	13	11
West North Central.....	125	18	213	65	4	6	6	2
South Atlantic.....	36	24	29	43	38	11	52	9
East South Central.....	341	73	362	47	37	31	47	16
West South Central.....	31	22	62	52	35	47	66	22
Mountain.....	46	36	28	36	0	9	9	9
Pacific.....	108	148	141	111	11	8	25	11

<sup>1</sup> The figures given in this table are rates per 100,000 population, annual basis, and not the number of cases reported. Populations used are estimated as of July 1, 1925 and 1926, respectively.

<sup>2</sup> Buffalo, N. Y., and New York, N. Y., not included.



Summary of weekly reports from cities, December 27, 1925, to January 9, 1926—  
Annual rates per 100,000 population—Compared with rates for the corresponding  
period of 1924-25—Continued

## CASE RATES—Continued

	Measles			
	Week ended—			
	Jan. 3, 1925	Jan. 2, 1926	Jan. 10, 1925	Jan. 9, 1926
103 cities.....	150	601	207	<sup>2</sup> 1, 113
New England.....	367	2, 373	381	3, 094
Middle Atlantic.....	120	550	168	<sup>2</sup> 564
East North Central.....	277	736	391	1, 761
West North Central.....	10	59	18	148
South Atlantic.....	50	460	79	1, 289
East South Central.....	16	104	26	52
West South Central.....	9	0	4	0
Mountain.....	111	82	129	55
Pacific.....	75	46	185	65

## DEATH RATES

	Influenza				Pneumonia			
	Week ended—				Week ended—			
	Jan. 3, 1925	Jan. 2, 1926	Jan. 10, 1925	Jan. 9, 1926	Jan. 3, 1925	Jan. 2, 1926	Jan. 10, 1925	Jan. 9, 1926
96 cities.....	18	15	20	<sup>2</sup> 21	195	184	185	<sup>2</sup> 220
New England.....	2	12	17	9	168	210	117	246
Middle Atlantic.....	21	10	20	<sup>2</sup> 18	225	186	227	<sup>2</sup> 240
East North Central.....	9	8	15	12	155	142	143	176
West North Central.....	8	15	13	8	91	117	87	140
South Atlantic.....	25	19	33	15	232	261	232	289
East South Central.....	58	31	42	83	278	259	268	332
West South Central.....	48	43	39	47	324	312	247	335
Mountain.....	37	27	18	46	222	264	222	127
Pacific.....	11	39	18	57	167	135	164	220

<sup>2</sup> Buffalo, N. Y., and New York, N. Y., not included.

<sup>2</sup> New York, N. Y., not included.

Number of cities included in summary of weekly reports, and aggregate population of  
cities in each group, approximated as of July 1, 1925 and 1926, respectively

Group of cities	Number of cities reporting cases	Number of cities reporting deaths	Aggregate population of cities reporting cases		Aggregate population of cities reporting deaths	
			1925	1926	1925	1926
Total.....	103	96	29, 944, 996	30, 473, 129	29, 251, 658	29, 764, 201
New England.....	12	12	2, 176, 124	2, 206, 124	2, 176, 124	2, 206, 124
Middle Atlantic.....	10	10	10, 346, 970	10, 476, 970	10, 346, 970	10, 476, 970
East North Central.....	16	16	7, 481, 656	7, 655, 436	7, 481, 656	7, 655, 436
West North Central.....	14	11	2, 594, 902	2, 634, 082	2, 461, 380	2, 499, 036
South Atlantic.....	21	21	2, 716, 070	2, 776, 070	2, 716, 070	2, 776, 070
East South Central.....	7	7	993, 103	1, 004, 953	993, 103	1, 004, 953
West South Central.....	8	6	1, 184, 067	1, 212, 067	1, 078, 198	1, 103, 695
Mountain.....	9	9	563, 912	572, 773	563, 912	572, 773
Pacific.....	6	4	1, 888, 142	1, 934, 084	1, 434, 245	1, 469, 144

# FOREIGN AND INSULAR

## THE FAR EAST

*Report for week ended December 26, 1925.*—The following report for the week ended December 26, 1925, was transmitted by the Far Eastern Bureau of the health section of the League of Nations' secretariat, located at Singapore, to the headquarters at Geneva:

Port	Plague		Cholera		Smallpox	
	Cases	Deaths	Cases	Deaths	Cases	Deaths
Calcutta.....	0	0	13	8	3	3
Bombay.....	0	0	0	4	4	4
Madras.....	0	0	8	2	0	0
Rangoon.....	3	0	0	1	0	0
Karachi.....	0	0	0	0	0	0
Negapatam.....	0	0	3	0	0	0
Bnsra.....	0	0	0	6	3	3
Singapore.....	1	1	0	1	0	0
Port Swettenham.....	0	0	0	0	0	0
Penang.....	0	0	0	0	0	0
Batavia.....	0	0	0	0	0	0
Soerabaya.....	1	1	0	4	3	3
Samarang.....	0	0	0	0	0	0
Belawan Deli.....	0	0	0	0	0	0
Padang (Sumatra).....	0	0	0	0	0	0
Sabang (Rhio).....	0	0	0	0	0	0
Macassar.....	1	1	0	0	0	0
Pontianak (Borneo).....	0	0	0	0	0	0
Sundakan (North Borneo).....	0	0	0	0	0	0
Kuching (Sarawak).....	0	0	0	0	0	0
Manilla.....	0	0	0	0	0	0
Zamboanga.....	0	0	0	0	0	0
Bangkok.....	0	0	61	32	3	1
Saigon and Cholon.....	0	0	0	0	1	1
Hongkong.....	0	0	0	0	1	0
Shanghai.....	0	0	0	0	8	8
Amoy.....	0	0	0	0	0	0
Nagasaki.....	0	0	0	0	0	0
Yokohama.....	0	0	0	1	0	0
Simonseski.....	0	0	0	0	0	0
Moji.....	0	0	0	0	0	0
Kobe.....	0	0	0	0	0	0
Osaka.....	0	0	0	0	0	0
Kaelung.....	0	0	0	0	0	0
Fusan.....	0	0	0	0	2	0
Dairen.....	0	0	0	0	0	0
Adelaide.....	0	0	0	0	0	0
Brisbane.....	0	0	0	0	0	0
Fremanile.....	0	0	0	0	0	0
Melbourne.....	0	0	0	0	0	0
Sydney.....	0	0	0	0	0	0
Rockhampton.....	0	0	0	0	0	0
Townsville.....	0	0	0	0	0	0
Port Darwin.....	0	0	0	0	0	0
Broome.....	0	0	0	0	0	0
Port Moresby.....	0	0	0	0	0	0
Honolulu.....	0	0	0	0	0	0
Suez.....	0	0	0	0	0	0
Alexandria.....	0	0	0	0	0	0
Port Said.....	0	0	0	0	0	0
Mombasa (Kenya).....	0	0	0	0	0	0
Zanzibar.....	0	0	0	0	0	0
Messowah.....	0	0	0	0	0	0
Djibuti.....	0	0	0	0	0	0
Lourenco-Marques.....	0	0	0	0	0	0
Durban.....	0	0	0	0	0	0
East London.....	0	0	0	0	0	0
Port Elizabeth.....	0	0	0	0	0	0
Cape Town.....	0	0	0	0	0	0
Port Louis (Mauritius).....	1	1	0	0	0	0
Seychelles.....	0	0	0	0	0	0

## BAHAMA ISLANDS

*Communication with Florida prohibited by Bahama authorities.*—The American consul at Nassau, Bahama Islands, reporting under date of January 25, 1926, states that the Bahama Government has prohibited communication with Florida because of the presence of smallpox at Miami.

## BRAZIL

*Mortality from malaria—Para.*—During the period December 20, 1925, to January 2, 1926, 15 deaths from malaria were reported at Para, Brazil.

## INDO-CHINA

*Cholera—Plague—Smallpox—Influenza—September, 1925.*—During the month of September, 1925, cholera, plague, smallpox, and influenza were reported in Indo-China, as follows:

*Cholera.*—Cases, 9; deaths, 5; corresponding month of the year 1924—cases, 7 (2 European); deaths, 4 (native).

*Plague.*—Cases, 17; deaths, 16; corresponding month of 1924—12 fatal cases.

*Smallpox.*—Cases, 122; deaths, 33; corresponding month, 1924—cases, 78; deaths, 22. For distribution according to Provinces see pages 194, 195.

*Influenza.*—During the same period there were reported 101 cases of influenza with 5 deaths (12 cases in Cambodia, 77 in Laos, 12 in Tonkin); corresponding period, 1924—cases, 28; deaths, 5.

## JAMAICA

*Smallpox (reported as alastrim)—November 27–December 26, 1925.*—During the four-week period ended December 26, 1925, 52 cases of smallpox (reported as alastrim) were reported in the Island of Jamaica, occurring in localities other than Kingston; in the parish of Kingston 43 cases were reported.

*Other diseases.*—During the same period 6 cases of chicken pox, 1 case of lethargic encephalitis, 28 cases of pulmonary tuberculosis, and 50 cases of typhoid fever were reported in the Island of Jamaica.

## MADAGASCAR

*Exhumation and reburial of bodies of persons dead from plague.*—By decree made public November 7, 1925, the removal and reburial of bodies of persons dead from plague is authorized by law, after four years' burial and if carried out with sanitary precautions. Such removals were prohibited in 1921, the time of the appearance of plague in Madagascar.

## MEXICO

*Leprosy—Typhus fever—Tampico.*—During the 10 days ended December 31, 1925, one case of leprosy and one case of typhus fever were reported at Tampico, Mexico. The case of typhus fever ended fatally during the 10 days ended January 10, 1926.

## PERU

*Typhoid fever in Callao.*—In an article written under date of December 8, 1925, Dr. A. L. Barton, of Lima, invites attention to an outbreak of typhoid fever in Callao, which he attributes to a contaminated water supply. The article states that the disease appeared in all parts of the city, and that cases have occurred also in the districts of Chucuito and Bellavista.

## UNION OF SOUTH AFRICA

*Plague—Orange Free State—November 29–December 5, 1925.*—During the week ended December 5, 1925, a fatal case of plague, occurring in a native, was reported in the Boshof district, Orange Free State, Union of South Africa.

*Typhus fever.*—During the same period outbreaks of typhus fever were reported in Natal and the Orange Free State at one locality each.

## CHOLERA, PLAGUE, SMALLPOX, AND TYPHUS FEVER

The reports contained in the following tables must not be considered as complete or final as regards either the lists of countries included or the figures for the particular countries for which reports are given.

Reports Received During Week Ended January 29, 1926<sup>1</sup>

## CHOLERA

Place	Date	Cases	Deaths	Remarks
India.....				Nov. 8-14, 1925: Cases, 1,824; deaths, 1,041.
Madras.....	Dec. 6-12.....	32	13	
Rangoon.....	Nov. 22-Dec. 5.....	1	1	
Indo-China.....				September, 1925: Cases, 9; deaths, 5. September, 1924: Cases, 7; deaths, 4 (European cases 2.)
Provinces—				September, 1924: None.
Annam.....	Sept. 1-30.....	2	2	September, 1924: 1 case; 1 death.
Cochin China.....	do.....	5	3	September, 1924: None.
Tonkin.....	do.....	2		
Philippine Islands:				
Manila.....	Nov. 23-Dec. 5.....	4	3	
Provinces.....				Subject to correction.
Bataan.....	Nov. 30-Dec. 6.....	6	6	
Do.....	Dec. 7-13.....	4	2	
Bulacan.....	Nov. 23-Dec. 6.....	80	18	
Do.....	Dec. 7-13.....	28	16	
Laguna.....	Nov. 23-29.....	12	10	
Do.....	Nov. 30-Dec. 13.....	4	3	
Nueva Ecija.....	Nov. 30-Dec. 6.....	5	1	
Do.....	Dec. 7-13.....	1	1	
Pampanga.....	Nov. 23-29.....	4	3	
Do.....	Nov. 30-Dec. 13.....	38	27	
Romblon.....	Dec. 7-13.....	23	12	
Siam:				
Bangkok.....	Nov. 22-Dec. 5.....	122	62	

<sup>1</sup> From medical officers of the Public-Health Service, American consuls, and other sources.

## CHOLERA, PLAGUE, SMALLPOX, AND TYPHUS FEVER—Continued

## Reports Received During Week Ended January 29, 1926—Continued

## PLAGUE

Place	Date	Cases	Deaths	Remarks
British East Africa:				
Kenya—				
Kisumu.....	Nov. 29-Dec. 5....	1	1	
Ceylon:				
Colombo.....				Nov. 29-Dec. 5, 1925: 1 plague rodent.
Greece:				
Patras.....	Dec. 6-12.....	3	1	
India:				
Madras Presidency.....	Nov. 15-21.....	35	22	Nov. 8-14, 1925: Cases, 1,023; deaths, 771.
Rangoon.....	Nov. 22-Dec. 5....	3	2	
Indo-China:				
Province—				
Cambodia.....	Sept. 1-30.....	11	11	September, 1925: Cases, 17; deaths, 16. September, 1924: Cases, fatal, 12.
Cochin China.....	do.....	6	5	September, 1924: Cases, 9; deaths, 9. September, 1924: Cases, fatal, 9.
Java:				
Batavia.....	Nov. 28-Dec. 4....	33	31	In Province.
Soerabaya.....	Nov. 15-21.....	3	3	
Siam:				
Bangkok.....	Nov. 22-28.....	1	1	
Straits Settlements:				
Singapore.....	Nov. 1-21.....	5	5	
Union of South Africa:				
Orange Free State—				
Boshof District.....	Nov. 29-Dec. 5....	1	1	In native.

## SMALLPOX

British East Africa:				
Kenya—				
Mombasa.....	Nov. 29-Dec. 5....	1		In contact.
Canada:				
Manitoba—				
Winnipeg.....	Jan. 3-9.....	6		
Ontario—				
Ottawa.....	do.....	1		
Toronto.....	do.....	2		
Saskatchewan—				
Moose Jaw.....	do.....	2		
Ceylon:				
Colombo.....	Dec. 6-12.....	1		Port case.
China:				
Amoy.....	Nov. 29-Dec. 5....		1	
Chungking.....	do.....			Present.
Hongkong.....	Nov. 22-28.....	3		
Manchuria—				
Dairen.....	Nov. 30-Dec. 6....	5	2	
Shanghai.....	Dec. 6-19.....	10	11	Cases foreign, in International and French Concessions; deaths foreign and native.
Great Britain:				
England and Wales.....				
Hull.....	Dec. 20-26.....	5		Dec. 20-26, 1925: Cases, 178.
India:				
Calcutta.....	Nov. 29-Dec. 5....		3	Nov. 8-14, 1925: Cases, 1,636; deaths, 352.
Madras.....	Dec. 6-12.....	6	2	
Rangoon.....	Nov. 22-28.....	1		
Indo-China:				
Province—				
Annam.....	Sept. 1-30.....	47	9	September, 1925: Cases, 122; deaths, 33. September, 1924: Cases, 78; deaths, 22.
Cambodia.....	do.....	29	8	September, 1924: Cases, 8; deaths, 2.
Cochin China.....	do.....	28	16	September, 1924: Cases, 16; deaths, 1.
Tonkin.....	do.....	18		September, 1924: Cases, 43; deaths, 19.
Jamaica.....				September, 1924: Cases, 11.
Kingston.....	Nov. 27-Dec. 26....	43		Nov. 27-Dec. 26, 1925: Cases, 52 (reported as alastrim).
Japan:				
Taiwan (Island).....	Dec. 1-10.....	2		Island.
Yokohama.....	Dec. 14-20.....	1		

**CHOLERA, PLAGUE, SMALLPOX, AND TYPHUS FEVER—Continued****Reports Received During Week Ended January 29, 1926—Continued****SMALLPOX—Continued**

Place	Date	Cases	Deaths	Remarks
Java:				
Soerabaya.....	Nov. 15-21.....	42	5	
Mexico:				
Aguascalientes.....	Dec. 27-Jan. 2.....		1	
Portugal:				
Oporto.....	Dec. 13-19.....	1	1	
Spain:				
Valencia.....	Dec. 20-26.....	1		
Switzerland:				
Lucerne.....	Nov. 1-30.....	2		
Tunisia:				
Tunis.....	Dec. 11-20.....	10		

**TYPHUS FEVER**

Mexico:				
Mexico City.....	Dec. 20-26.....	7		Including municipalities in Federal District.
Do.....	Dec. 27-Jan. 2.....	5		Do.
Tampico.....	Dec. 21-Jan. 10.....	1	1	
Union of South Africa:				
Natal.....	Nov. 29-Dec. 5.....			Outbreak in one locality.
Orange Free State.....	do.....			Do.

**Reports Received from December 26, 1925, to January 22, 1926 <sup>1</sup>****CHOLERA**

Place	Date	Cases	Deaths	Remarks
India.....				Oct. 18-Nov. 7, 1925: Cases, 4,720; deaths, 2,749.
Calcutta.....	Nov. 1-28.....	101	89	
Madras.....	Nov. 15-Dec. 5.....	45	18	
Rangoon.....	Nov. 8-21.....	3	3	
Japan.....	Aug. 30-Sept. 19.....	121		
Philippine Islands:				
Manila.....	Nov. 9-22.....	4	3	
Province—				
Bulacan.....	Oct. 18-Nov. 7.....	92	64	
Pampanga.....	Nov. 1-7.....	1	1	
Rizal.....	Sept. 27-Oct. 24.....	70	21	
Russia.....	May-June.....	7		
Siam:				
Bangkok.....	Oct. 4-31.....	60	30	Infection stated to have been imported on vessel.
Do.....	Nov. 1-14.....	48	38	
On vessel:				
Steamship.....	Oct. 3.....	9		Arrived at Bangkok, Siam; 9 cases in coolie passengers.

**PLAGUE**

Brazil:				
Bahia.....	Nov. 8-14.....	2		
Santos.....	Dec. 8-21.....		2	
British East Africa:				
Kenya—				
Kisumu.....	Nov. 22-28.....		1	
Uganda Protectorate.....	September, 1925.....	163	85	
Canary Islands:				
Santa Cruz de Tenerife.....	Dec. 18.....	2		
Ceylon:				
Colombo.....	Nov. 15-28.....	2	3	
China:				
Nanking.....	Nov. 15-Dec. 5.....			Prevalent.

<sup>1</sup> From medical officers of the Public Health Service, American consuls, and other sources.

**CHOLERA, PLAGUE, SMALLPOX, AND TYPHUS FEVER—Continued**  
**Reports Received from December 26, 1925, to January 22, 1926—Continued**

**PLAGUE—Continued**

Place	Date	Cases	Deaths	Remarks
Ecuador:				
Guayaquil.....	Nov. 1-Dec. 15....	15	8	Rats taken, Nov. 1-Dec. 15, 1925: 36,578; rats found infected, 214.
Egypt.....				Jan. 1-Dec. 9, 1925: Cases, 138.
Beni Suef.....	Nov. 13, 1925.....	1	1	Corresponding period, 1924:
Fayoum Province.....	Dec. 3-9.....	1	1	Cases, 365.
Greece:				
Athens.....	Nov. 1-30.....	18	4	Including Piræus.
Patras.....	Nov. 13.....	1		
India:				
Karachi.....	Nov. 1-14.....	3	2	Oct. 18-Nov. 7, 1925: Cases, 3,753;
Madras.....	Oct. 25-Nov. 7.....	75	41	deaths, 2,476.
Rangoon.....	Oct. 25-Nov. 21.....	15	9	
Java:				
Batavia.....	Oct. 24-Nov. 6.....	94	89	Province.
Do.....	Nov. 14-27.....	136	128	
Ocheribon.....	Sept. 27-Oct. 17.....		166	
Djakakarta.....	Nov. 9.....			Epidemic in one locality.
Pekalongan.....	Sept. 27-Oct. 17.....		42	
Soerabaya.....	Oct. 11-Nov. 14.....	27	27	
Tegal.....	Sept. 27-Oct. 17.....	6	6	
Madagascar:				
Province—				
Itasy.....	Sept. 16-Oct. 31.....	20	20	
Moramanga.....	do.....	17	17	
Tananarive.....	do.....	174	159	
Town—				
Port Dauphin.....	Sept. 16-Oct. 15.....	5	2	
Tamatave (port).....	Sept. 16-30.....	3	2	
Do.....	Oct. 16-31.....	4	4	
Tananarive.....	Sept. 16-30.....	2	2	
Mauritius Island.....	Sept. 20-Oct. 17.....	5	5	
Russia.....	May-June.....	67		
Senegal.....	September, 1925.....	22	12	
Siam.....	Aug. 23-Sept. 5.....	23	20	
Bangkok.....	Nov. 15-21.....	2	2	
Syria:				
Beirut.....	Nov. 11-20.....	1		
Union of South Africa:				
Cape Province—				
Steynsburg district.....	Nov. 15-21.....	1		Native. On farm.

**SMALLPOX**

Algeria:				
Algiers.....	Nov. 21-Dec. 10....	58		
Arabia:				
Aden.....	Nov. 29-Dec. 5.....	1		Imported.
Argentina:				
Rosario.....	October, 1925.....		1	
Brazil:				
Rio de Janeiro.....	Nov. 1-28.....	134	72	
British East Africa:				
Kenya—				
Mombasa.....	Nov. 15-23.....	9	3	From mainland; Nov. 22-28,
Uganda Protectorate.....	Sept. 1-30.....	7	4	contact cases.
British South Africa:				
Southern Rhodesia.....	Nov. 13-19.....	1		Native.
Canada.....				Sept. 13-Jan. 2: In seven prov-
Alberta—				inces, 186 cases.
Calgary.....	Dec. 13-19.....	1		From Drumheller, vicinity of
Manitoba—				Calgary.
Winnipeg.....	do.....	2		
New Brunswick—				
Northumberland.....	Dec. 6-13.....	1		
Ontario.....				
Ottawa.....	Dec. 6-12.....	2		December, 1925: Cases, 32;
Toronto.....	Dec. 27-Jan. 2.....	1		deaths, 1. Occurring in 15
				localities.

# **CHOLERA, PLAGUE, SMALLPOX, AND TYPHUS FEVER—Continued** **Reports Received from December 26, 1925, to January 22, 1926—Continued**

## **SMALLPOX—Continued**

Place	Date	Cases	Deaths	Remarks
China:				
Amoy.....	Oct. 25-Nov. 21.....	-----	-----	Present.
Antung.....	Dec. 7-13.....	1	-----	
Chungking.....	Nov. 15-21.....	-----	-----	Do.
Foochow.....	Nov. 1-21.....	-----	-----	Do.
Hankow.....	Nov. 14-21.....	3	-----	
Manchuria—				
An-shan.....	Dec. 6-12.....	1	-----	
Dairen.....	Oct. 19-Nov. 29.....	35	8	
Mukden.....	Oct. 24-Nov. 15.....	1	-----	
Tieh-ling.....	.....do.....	2	-----	
Nanking.....	Nov. 21-Dec. 5.....	-----	-----	Do.
Shanghai.....	Oct. 25-Dec. 5.....	13	14	
Swatow.....	Nov. 22-Dec. 5.....	-----	-----	Do.
Tientsin.....	Nov. 1-7.....	1	-----	
Egypt:				
Alexandria.....	Dec. 3-9.....	1	1	
France.....	-----	-----	-----	September, 1925: Cases, 25.
Great Britain:				
England and Wales.....	Nov. 15-Dec. 19.....	612	-----	
Hull.....	Nov. 29-Dec. 19.....	20	-----	
Newcastle-on-Tyne.....	.....do.....	6	-----	
Sheffield.....	Nov. 22-Dec. 12.....	7	-----	
Greece.....	-----	-----	-----	Oct. 1-31, 1925: Cases, 16.
Athens.....	Nov. 1-30.....	17	1	
India.....	-----	-----	-----	Oct. 18-Nov. 7, 1925: Cases, 3,457; deaths, 774.
Bombay.....	Nov. 8-28.....	12	7	
Calcutta.....	.....do.....	15	9	
Karachi.....	Nov. 1-21.....	23	-----	
Do.....	Nov. 29-Dec. 5.....	4	2	
Madras.....	Nov. 15-Dec. 5.....	6	2	
Rangoon.....	Oct. 25-Nov. 21.....	2	-----	
Iraq.....	-----	-----	-----	Sept. 6-19, 1925: Cases, 41; deaths, 24.
Bagdad.....	Nov. 1-14.....	4	4	
Do.....	Nov. 22-Dec. 5.....	9	9	
Italy.....	-----	-----	-----	Aug. 2-Sept. 30, 1925: Cases, 26.
Rome.....	Oct. 12-25.....	1	-----	
Japan:				
Taiwan.....	Nov. 11-20.....	1	-----	
Java:				
Batavia.....	Oct. 24-30.....	1	-----	
Do.....	Nov. 14-27.....	5	-----	Province and city.
Kraksaen.....	Oct. 11-17.....	11	-----	
Malang.....	.....do.....	2	-----	
North Bantam.....	Oct. 4-17.....	4	-----	
Probolingo.....	Oct. 11-17.....	1	-----	
Soerabaya.....	Oct. 11-Nov. 14.....	301	45	
South Bantam.....	.....do.....	1	-----	
Tegal.....	Oct. 4-10.....	9	1	
Malta.....	November, 1925.....	14	-----	
Mexico:				July-August, 1925: Deaths, 905.
Agascalientes.....	Dec. 13-20.....	-----	2	
Durango.....	Dec. 1-31.....	4	1	
Guadalajara.....	Dec. 29-Jan. 4.....	-----	3	
Mexico City.....	Nov. 28-Dec. 5.....	1	-----	
Torreon.....	Nov. 1-30.....	-----	15	
Persia:				
Teheran.....	July 23-Aug. 23.....	-----	68	
Peru:				
Arequipa.....	Oct. 1-31.....	-----	1	
Portugal:				
Lisbon.....	Oct. 4-31.....	124	-----	
Do.....	Nov. 16-Dec. 8.....	-----	31	
Do.....	Nov. 14-Dec. 19.....	179	-----	
Oporto.....	Nov. 22-Dec. 8.....	1	2	
Russia.....	-----	-----	-----	May-June, 1925: Cases, 1,336.
Siam.....	-----	-----	-----	July 12-Sept. 5, 1925: Cases, 21; deaths, 6.
Spain:				
Malaga.....	Nov. 29-Dec. 5.....	-----	2	
Switzerland.....	-----	-----	-----	June 28-Oct. 24, 1925: Cases, 36.
Lucerne.....	Oct. 1-31.....	6	-----	
Tunisia:				
Tunis.....	Nov. 21-30.....	2	-----	



**CHOLERA, PLAGUE, SMALLPOX, AND TYPHUS FEVER—Continued**  
**Reports Received from December 26, 1925, to January 22, 1926—Continued**

**TYPHUS FEVER**

Place	Date	Cases	Deaths	Remarks
Algeria:				
Algiers .....	October, November.	3	—	
Argentina:				
Rosario .....	Oct. 1-31 .....	1	—	
Chile:				
Valparaiso .....	Nov. 29-Dec. 5 .....	—	1	
China:				
Antung .....	Nov. 29-Dec. 6 .....	4	1	
Egypt:				
Port Said .....	Nov. 19-25 .....	1	—	
Finland .....				October, 1925: One case.
Greece:				
Athens .....	Nov. 1-30 .....	11	2	
Latvia .....	October, 1925 .....	2	—	
Lithuania .....				September, 1925: Cases, 8; deaths, 1.
Mexico .....				July-August, 1925; deaths, 65.
Aguascalientes .....	Dec. 14-19 .....	1	—	
Durango .....	Dec. 1-31 .....	—	1	
Guadalajara .....	Dec. 8-Jan. 4 .....	—	3	
Mexico City .....	Nov. 22-Dec. 19 .....	150	—	Including municipalities in Federal district.
Torreon .....	November, 1925 .....	—	1	
Palestine:				
Jaffa .....	Dec. 1-7 .....	1	—	
Nazareth .....	Nov. 3-9 .....	1	—	
Safad .....	Nov. 24-30 .....	1	—	
Tel-Aviv .....	do .....	1	—	
Peru:				
Arequipa .....	October, 1925 .....	—	2	
Poland .....	Oct. 11-31 .....	54	5	
Rumania .....				July, 1925: Cases, 74; deaths, 9.
Russia .....				May-June, 1925: Cases, 7,609.
Union of South Africa .....				October 1-31, 1925: Cases, 88; deaths, 7 (colored); cases, 7 (European population).
Cape Province .....	Oct. 1-31 .....	63	5	Colored.
Do. ....	Nov. 8-14 .....	—	—	Outbreaks in two districts.
Natal .....	Oct., 1925 .....	1	—	Do.
Orange Free State .....	do .....	23	1	Do.
Do. ....	Nov. 1-7 .....	—	—	Outbreaks.
Transvaal .....	Oct. 1-31 .....	1	1	



TREASURY DEPARTMENT

# PUBLIC HEALTH REPORTS

ISSUED WEEKLY

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PUBLIC HEALTH SERVICE

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FEBRUARY 5    -    1926

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## SPECIAL ARTICLES

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Experiments Using Brewers' Yeast to Supplement a  
Deficient Diet

The Rate of Deoxygenation of Polluted Waters

Deaths from Pneumonia and Influenza in large cities



WASHINGTON  
GOVERNMENT PRINTING OFFICE  
1926

# UNITED STATES PUBLIC HEALTH SERVICE

HUGH S. CUMMING, *Surgeon General*

## DIVISION OF SANITARY REPORTS AND STATISTICS

Asst. Surg. Gen. B. J. LLOYD, *Chief of Division*

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They contain: (1) Current information of the prevalence and geographic distribution of preventable diseases in the United States in so far as data are obtainable, and of cholera, plague, smallpox, typhus fever, yellow fever, and other communicable diseases throughout the world. (2) Articles relating to the cause, prevention, or control of disease. (3) Other pertinent information regarding sanitation and the conservation of the public health.

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# PUBLIC HEALTH REPORTS

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## SOME NUTRITION EXPERIMENTS WITH BREWERS' YEAST

With Especial Reference to its Value in Supplementing Certain Deficiencies in Experimental Rations

By MAURICE I. SMITH, Pharmacologist, and E. G. HENDRICK, Laboratory Assistant, Division of Pharmacology, Hygienic Laboratory, United States Public Health Service

In the course of an investigation on the influence of dietary deficiencies on experimental tuberculosis in the albino rat it was noted that a diet composed of 40 per cent rolled oats (6 per cent protein) plus 10 per cent purified casein supplemented with fat soluble A and inorganic salts failed to produce normal growth, such as is obtained when the rat is maintained on a synthetic diet of 16 to 18 per cent purified casein supplemented with fat soluble A, inorganic salts, and vitamin B.

McCollum, Simmonds, and Pitz, in 1917 (1) examined the dietary properties of the oat kernel and found the quality of its protein to be inferior to that of other cereal grains. They obtained better results by supplementing the oat protein with casein or with gelatin, though growth on such mixtures was still below normal.

The results we obtained with the oat-casein ration<sup>1</sup> which was employed in the work referred to above (2) clearly indicated that it was lacking in some essential factor. Growth on this ration was decidedly subnormal. It was suspected that the ration did not contain a sufficient amount of the water-soluble factor. Addition of 2 per cent dried brewers' yeast to the ration, replacing an equivalent amount of starch, gave, indeed, a much better growth curve, with less individual variation. It was not clear whether the improvement was due to the yeast protein, the water-soluble vitamin, or to some other unknown factor.

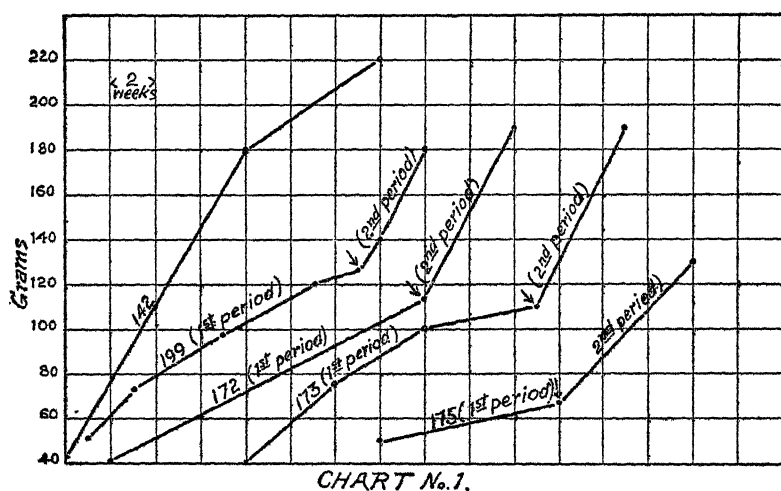
In the present work this observation was extended with a view to determining the nature of the oat deficiency and the character of the yeast constituent that is capable of correcting this deficiency.

	Per cent
<sup>1</sup> Rolled oats.....	40.0
Purified casein.....	10.0
NaCl.....	1.0
CaCO <sub>3</sub> .....	1.5
Butterfat.....	10.0
Starch.....	37.5

100.0

The experiments were carried out upon carefully selected rats from our own colony, bred and raised under standard conditions. Young males, weighing 40 to 50 grams, and about 4 weeks of age, were placed on the respective diets in groups of five or six animals each. The rations were made up by mixing intimately the various constituents and fed ad libitum. The animals were weighed once a week. The curves in the charts represent the average weights of the corresponding groups.

When rats of the above description are placed on an adequate synthetic diet, the composition of which is indicated in Table 1 under ration No. 142, good uniform growth results, which, for pur-



poses of comparison, may be regarded as normal. (See curve 142, Chart 1.)

A ration in which the oat kernel furnished all the protein (14 per cent), and supplemented with inorganic salts and vitamin A, failed to produce normal growth, as shown in the first period of curve 199 of Chart 1.

The results were no better when the protein in the oat ration was increased to 16 and 18 per cent, part of which was furnished in the form of casein or gelatin, as shown in the first periods of curves 172, 173, and 175 (Chart 1). It is evident, therefore, that neither casein nor gelatin is capable of supplementing satisfactorily the oat deficiency.



TABLE 1.—*Showing composition of rations used for the groups indicated in the curves of Charts 1 and 2*

Ration	Rolled oats	Casein <sup>1</sup>	Gelatin	Salt mixture 185%	Dried brewer's yeast	Autoclaved yeast	Yeast protein	Butterfat <sup>1</sup>	Olive oil	NaCl	CaCO <sub>3</sub>	Starch
142	-----	18.0	-----	4.0	5.0	-----	-----	5.0	5.0	-----	-----	63.0
199 (first period)	92.5	-----	-----	-----	-----	-----	-----	5.0	-----	1.0	1.5	-----
199 (second period)	86.5	-----	-----	-----	6.0	-----	-----	5.0	-----	1.0	1.5	-----
172 (first period)	40.0	12.0	-----	-----	-----	-----	-----	5.0	5.0	1.0	1.5	35.5
172 (second period)	40.0	9.0	-----	-----	6.0	-----	-----	5.0	5.0	1.0	1.5	32.5
173 (first period)	40.0	10.0	-----	4.0	-----	-----	-----	5.0	5.0	-----	-----	36.0
173 (second period)	80.0	-----	-----	-----	8.0	-----	-----	5.0	5.0	1.0	1.5	-----
175 (first period)	40.0	-----	10.0	4.0	-----	-----	-----	5.0	5.0	-----	-----	35.0
175 (second period)	40.0	-----	10.0	4.0	-----	5.0	-----	5.0	5.0	-----	-----	31.0
176	40.0	10.0	-----	-----	5.0	-----	-----	5.0	5.0	1.0	1.5	32.5
195	40.0	-----	10.0	-----	5.0	-----	-----	5.0	5.0	1.0	1.5	32.5
192	80.0	-----	-----	-----	6.0	-----	-----	5.0	5.0	1.0	1.5	1.5
191 (first period)	80.0	6.0	-----	-----	-----	-----	-----	5.0	5.0	1.0	1.5	1.5
191 (second period)	80.0	-----	-----	-----	6.0	-----	-----	5.0	5.0	1.0	1.5	1.5
177	40.0	10.0	-----	-----	-----	5.0	-----	5.0	5.0	1.0	1.5	32.5
234 (first period)	80.0	-----	-----	-----	-----	-----	6.0	5.0	5.0	1.0	1.5	1.5
234 (second period)	80.0	-----	-----	-----	-----	6.0	-----	5.0	5.0	1.0	1.5	1.5
197	-----	12.0	-----	4.0	6.0	-----	-----	5.0	5.0	-----	-----	63.0

<sup>1</sup> Purified by the method of McCollum et al. (3).<sup>2</sup> McCollum and Davis: Jour. Biol. Chem., 1915, 23, 235.

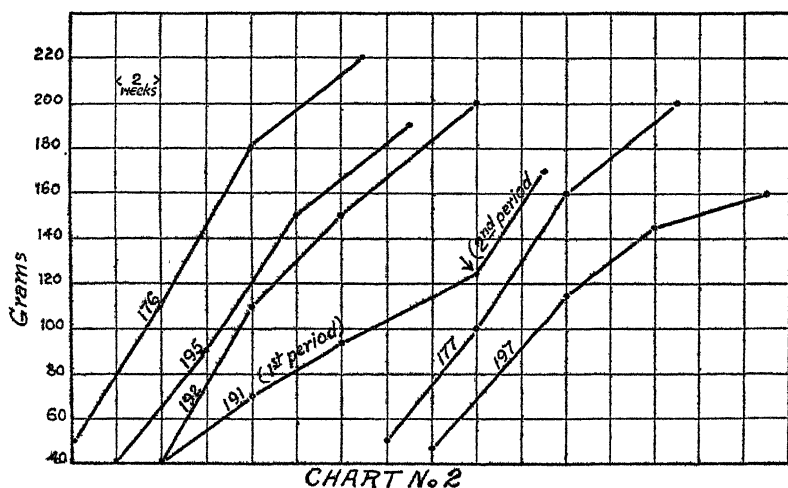
The addition of 5 to 6 per cent dried brewers' yeast to the oat ration produced a normal growth curve, irrespective of whether the ration contained casein, gelatin, or neither. This is shown in curves 176, 195, and 192, Chart 2. It is clear, therefore, that dried brewers' yeast satisfactorily supplements the oat kernel. The same is evident from the results of the second period of feeding of groups 199, 172, 173, Chart 1, and 191 of Chart 2, when 6 per cent yeast was either added to the oat-casein mixture or entirely replaced the casein constituent of the diet, or when it replaced an equivalent amount of oats.

It should be noted here that the suggestion that the oat kernel contains a toxic substance which might be injurious if fed in large amounts (1) is untenable, for as much as 80 per cent of oats fed in a ration supplemented with 6 per cent yeast, inorganic salts, and vitamin A, produced a normal growth curve. (See curve 192, Chart 2.)

A consideration of the results obtained thus far led us to inquire into the factor or factors present in dried brewers' yeast capable of supplementing the oat deficiency. Though the oat kernel is known to contain liberal amounts of vitamin B (1), the possibility suggested itself that the level at which oats were fed in rations 172, 173, or 175 might not furnish this vitamin in adequate amounts. To test this possibility a quantity of dried brewers' yeast was autoclaved for six hours at 15-pound pressure, which procedure completely destroyed its vitamin B content, as shown by repeated tests on rats, and this material was fed at a 5 per cent level to group 177 (Chart 2) and to

group 175 (Chart 1) during the second period of feeding. The results demonstrate that autoclaving brewers' yeast, though destroying its vitamin B content, does not impair its efficacy in supplementing the oat deficiency. The oat kernel is therefore not deficient in vitamin B, even if fed at a level of 40 per cent, but is deficient in some other factor, a factor which is present in brewers' yeast and which withstands prolonged autoclaving.

The possibility that the oat protein is deficient in some essential amino acid which is furnished in brewers' yeast suggested itself. It must be admitted, however, that on a priori grounds such a possibility is very remote; for, from what we know of the chemistry of the oat protein, it contains very liberal amounts of the essential amino acids, cystin, lysin, histidine, and arginine (4). There appears to be no definite data on its tryptophane content; but that this



can not be the limiting factor is shown by the fact that casein protein containing 2 per cent tryptophane (5) does not supplement oats even if fed at 10 and 12 per cent levels, while yeast with a tryptophane content of only 0.5 per cent (5) supplements it admirably when fed at 6 per cent level. Similar considerations exclude tyrosine and glutaminic acid as possible limiting factors. The matter was further put to test by feeding yeast protein<sup>2</sup> at a 6 per cent level along with 80 per cent rolled oats in a ration similar to that of 192 (ration 234). The animals showed a decidedly subnormal growth after a period of five weeks, the curve being almost exactly the same as that of 191. Upon replacing the 6 per cent yeast protein

<sup>2</sup> I am indebted for this yeast fraction to Dr. A. Seidell, of this laboratory. It consisted of the insoluble product obtained by diluting fresh brewers' yeast with about an equal volume of water, heating to 90° C., filtering, and drying.

with 6 per cent autoclaved yeast (ration 234, second period), growth was resumed and proceeded in a normal manner.

The fact that the oat protein and the casein protein do not supplement each other and that they are both adequately supplemented by brewers' yeast clearly indicates that they are both lacking in the same essential factor. In other words, a ration in which purified casein is the only source of protein, besides having to be supplemented with vitamin B and the other known essential factors, must be also supplemented with that unknown factor present in yeast in order to make it adequate. This factor, as pointed out earlier, withstands prolonged autoclaving.

In the light of these experiments it is hardly possible to regard casein protein in any way superior to oat protein. This is shown in a very striking manner by comparing curves 197 and 192. The diet in the former case consisted of 12 per cent casein protein, that in the latter of 12 per cent oat protein, both being supplemented with 6 per cent yeast. The growth curve on the oat protein diet was better. If one now compares curve 197 with 172 or 173 it is quite apparent that casein is better supplemented by 6 per cent yeast (about 3 per cent protein) than by 40 per cent oats (6 per cent protein), in spite of the fact that this amount of oats furnishes all the necessary vitamin B, as is readily seen from curve 177.

Further evidence of the correctness of the above view was secured from some experiments carried out in cooperation with Doctor Seidell while testing the activity of some of his vitamin B fractions.

Young rats weighing from 30 to 35 grams each were placed on a ration consisting of the following:

	Per cent
Casein (purified).....	18
Salt mixture 185.....	4
2 per cent vitamin B picrate (6) in milk sugar.....	1
Cod liver oil.....	2
Olive oil.....	8
Starch.....	67
	<hr/> 100

The rats consumed from 1 to 2 milligrams of the picrate per day, but failed to show any gain in weight during a period of three weeks. At the end of this time 5 per cent autoclaved yeast was added to the above ration, replacing an equivalent amount of starch, when the animals promptly began gaining in weight. It should be added that the same ration, including the autoclaved yeast but without the picrate, when fed to animals of about the same weight and age, resulted in a gradual loss in weight, and death within three to four weeks.

In another series of experiments a number of rats that had attained a weight of 90 to 110 grams on diet 142 (adequate in every respect) were placed upon a similar diet from which the yeast was omitted. In three weeks their weights declined to from 75 to 90 grams. Nine groups of animals were then selected, three in each, placed in individual cages, and fed separately from the basal ration graded amounts of a vitamin B fraction<sup>3</sup> daily, with and without the daily addition of 500 milligrams autoclaved yeast. The results of this test, which lasted 11 days, may be summarized in the following:

Milligrams vitamin B fraction fed daily	Gain per rat in 11 days		Milligrams vitamin B fraction fed daily	Gain per rat in 11 days	
	Without autoclaved yeast	With autoclaved yeast		Without autoclaved yeast	With autoclaved yeast
25.....	20	27	2.5.....	0	9
15.....	14	27	5.....	-7	-3
5.....	3	27			

The effect produced with the 2.5 and 5 milligrams of the yeast vitamin fraction when fed in combination with the autoclaved yeast is approximately the same as that obtained from the feeding of 200 and 500 milligrams whole dried brewers' yeast, respectively, under the same conditions. It would thus seem that this particular vitamin fraction is about one hundred times as active as whole dried brewers' yeast in its vitamin B content. Since fair growth also resulted from feeding of this fraction alone in doses of upwards of 15 milligrams, it would appear that some of the unrecognized factor in yeast is carried along with the vitamin B factor in this fraction.

#### CONCLUSIONS

Dried brewers' yeast contains some factor essential in nutrition other than vitamin B. This factor withstands autoclaving at pounds pressure for six hours. It is not in the heat and acid coagulable yeast protein. It is capable of adequately supplementing a ration in which the oat kernel is the sole source of protein and vitamin B.

Evidence is advanced to show that a synthetic ration with casein as the sole source of protein must be supplemented with this unrecognized factor present in yeast, besides vitamin B, in order to make it adequate.

When properly supplemented, oat protein appears to be just as satisfactory in the nutrition of the rat as is casein protein.

<sup>3</sup> I am indebted to Doctor Seidell for this vitamin fraction, a description of which will soon appear in his publication.

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THE RATE OF DEOXYGENATION OF POLLUTED WATERS<sup>1</sup>

By EMERY J. THERIAULT, Associate Chemist, U. S. Public Health Service

The biochemical oxygen demand test to be discussed in this paper, although at present it enjoys a certain measure of renewed interest, is by no means new. The earliest record of such a procedure is probably to be found in a report published in 1870 by a British Rivers Pollution Commission. In France, oxygen demand determinations were made as long ago as 1885 in a study of the pollution of the Seine. In Germany, extensive series of experiments were conducted on the test from 1900 to 1911. In the United States, a modified procedure appears to have been used in the early experiments at the Lawrence Experiment Station, although it is only since 1915 that the method now in use has been more or less generally adopted.

It is significant both of the intrinsic merit of the biochemical oxygen demand test and, it must be admitted, of the numerous difficulties which arise in its practical application that, in a recent bibliographical review, no less than 150 references were found which dealt directly with the subject. The consensus of opinion appears to be that the test is valuable. In fact, for the purposes of stream-pollution studies, it is frequently the only chemical procedure which can be used to advantage. As a measure of the relative strength of various organic wastes and as a guide in estimating the efficiency of particular methods of treatment, the test also appears to possess decided advantages over the usual chemical procedures.

## GENERAL CONSIDERATIONS

As regards the theory underlying the test, it is a well-established fact that a polluted water containing bacteria, if exposed to air, tends to become completely purified. It has been repeatedly demon-

<sup>1</sup> The second of four papers of a symposium on stream pollution presented at the meeting of the sanitary engineering division of the American Society of Civil Engineers at Cincinnati, Ohio, Apr. 23, 1925, and published in the *Proceedings of the Society*, Vol. LI, No. 9, November, 1925. The first paper, "A review of the work of the United States Public Health Service in investigation of stream pollution," by W. H. Frost, was published in *Public Health Reports* for January 15, 1926.

strated that definite quantities of dissolved oxygen are absorbed during this self-purification process. It follows that the quantity of oxygen required for the complete stabilization of a polluted water may be taken as a measure of its organic matter content. In the simplest case, two glass-stoppered bottles are completely filled with the sample under examination. The initial dissolved oxygen content is found by analyzing one of these subsamples at the beginning of the test. The other subsample is placed in a constant temperature chamber at 20° C. After an arbitrarily selected time, preferably five days, the sample is removed from the incubator and its oxygen content is redetermined. If bacteria and organic matter were present, a decrease in the oxygen content is invariably observed. This decrease is then reported as the five-day oxygen demand of the sample at 20° C.

A limitation of this test as outlined lies in the fact that the saturation value for the dissolved oxygen content of water at 20° C. is only 9 parts per million, corresponding to the five-day oxygen demand of a highly purified effluent or a highly polluted water. With sewage effluents of average quality, a five-day oxygen demand value of about 20 parts per million may be expected. Before the test can be applied it is necessary, therefore, to dilute such effluents with 5 or 10 volumes of fully aerated distilled water or tap water of good quality. For raw sewages, the five-day oxygen demand is generally greater than 100 parts per million, so that the samples must be diluted about fifty times in order to provide a sufficient supply of oxygen throughout the course of the test. Tannery and abattoir wastes possess oxygen demand values which range from 1,000 to 10,000 parts per million. With unusual trade wastes, five-day oxygen demand values of 50,000 parts per million have been obtained. At the other extreme, the 5-day oxygen demand of good tap water is about 0.5 part per million.

Various other methods of procedure have been proposed for determining the oxygen requirements of heavily polluted waters without resorting to dilution. The "excess-oxygen" method just described, inasmuch as it depends on the volumetric determination of dissolved oxygen, using ordinary glass-stoppered bottles, possesses the merit of extreme simplicity. Extensive series of experiments conducted at the Cincinnati Laboratory of the United States Public Health Service have amply demonstrated that the precision attainable leaves little to be desired even if it is necessary to dilute the samples before conducting the test. With suitable laboratory facilities, the dilution technique is simple.

A more serious limitation, and a limitation which is inherent in any method of procedure, is the necessity for interpreting the results in the light of time and temperature relationships. Owing to the fact

that the rate of absorption of oxygen by a polluted water is exceedingly slow, it is generally desirable to extend the incubation period over several days. Again, as the reaction is purely biochemical, the temperature at which the test is conducted must be carefully controlled. In order to correlate the laboratory results with the ever-changing time of flow and temperature conditions of a stream, it is necessary, therefore, to obtain reasonably accurate formulas by which the oxygen demand of a sample after any interval of time at any specified temperature may be calculated from the values obtained under standardized conditions.

The experiments herein described were undertaken primarily for the purpose of confirming the validity of the various time and temperature correction formulas which have thus far been proposed. The discussion will be limited to the formulas developed in the course of the Ohio River investigation.<sup>2</sup> These experiments have also demonstrated that factors other than time and temperature must be considered before a valid interpretation of the highly consistent results obtained with the "excess-oxygen" method can be made. In particular, the condition of a sample with respect to its state of oxidation and, possibly, the nature of the microorganisms present both exert a marked influence on the magnitude of the observed oxygen demand values.

#### EXPERIMENTAL PROCEDURE

For the purpose of securing representative samples, a large vessel was first filled with Ohio River water or, in some instances, with sewage suitably diluted. After the sample had been thoroughly mixed, it was siphoned into bottles with capacities of 350 cubic centimeters. The initial oxygen content was then determined and the remaining subsamples were incubated at 9°, 20°, or 30° C. In the course of experiments, which have extended somewhat more than a year, 12 separate series of observations have been made. In most cases the course of the deoxygenation was followed for at least one month. As a rule the experiments were conducted in duplicate, and in several instances comparative data were obtained at three different temperatures.

#### PRECISION OF BASE DATA

The agreement between duplicate samples was excellent, even when the incubation period extended over several months. In one series of experiments, in which a large number of subsamples were titrated after an incubation period of 96 days at 20° C., the average deviation from the mean was found to be less than 0.2 part per million. The findings in this respect are of considerable analytical interest.

<sup>2</sup> H. W. Streeter and E. B. Phelps: Public Health Bulletin No. 146, U. S. Public Health Service.

## GENERAL COURSE OF DEOXYGENATION CURVE

Given the precision of the base data, the next step has been to plot the observed average oxygen demand values against the period of incubation. The type of curve obtained in a typical series of observations is illustrated by Figure 1. The data plotted in this chart are probably unique in so far as they all refer to the same sample incubated at different temperatures over prolonged periods. It is also to be noted that the oxygen demand determinations were made at relatively short intervals, so that the general course of the deoxygenation curve is reasonably well defined. At 9° C. (lower curve) there was a slight lag in the establishment of bacterial equi-

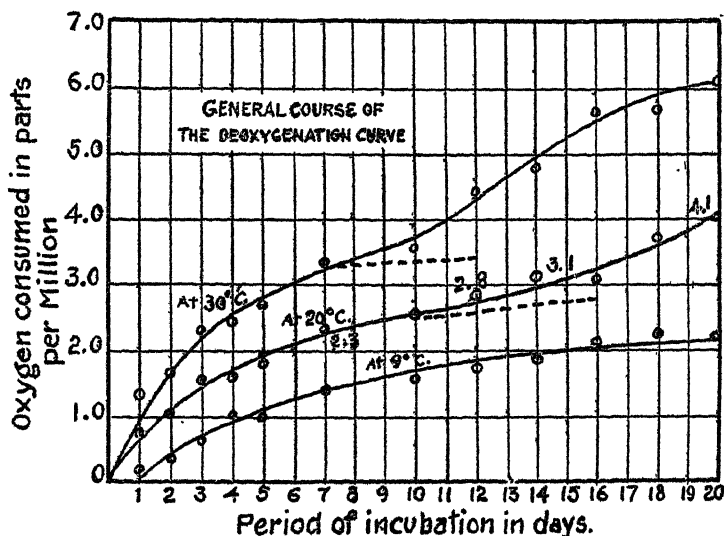


FIG. 1

librium. In other respects, however, there is a striking parallelism between the results obtained at different temperatures.

Considering only the results obtained at 20° C. (middle curve), it is evident that the rate of deoxygenation decreased very uniformly during the first 9 or 10 days. Relatively small quantities of oxygen were absorbed during the next 5 or 6 days. After the sixteenth day, the rate of deoxygenation suffered a marked acceleration. It is also noteworthy that, contrary to a generally accepted notion, appreciable quantities of dissolved oxygen continued to be absorbed even after the twentieth day. As the same phenomenon has been observed with fully aerated samples, this secondary increase in the rate of deoxygenation can hardly be ascribed to the approaching exhaustion of dissolved oxygen. In fact, within wide limits, the rate of deoxygenation is quite independent of the quantity of dissolved oxygen present.



The evidence accumulated thus far is very favorable to a view emphasized by Adeney and other British experimenters, namely, that under aerobic conditions the stabilization of organic matter proceeds in two distinct and strictly consecutive stages—the carbonaceous matter, etc., is first oxidized; then, and only then, does nitrification set in. The second point of inflection on the deoxygenation curve, therefore, marks the onset of the nitrification stage. It will be convenient to discuss these two distinct stages separately.

#### RATE OF DEOXYGENATION FORMULA

Considering only the average oxygen demand values corresponding to the first or carbon-oxidation stage, an attempt was next made to determine whether these results conformed with reasonable accuracy to a formula proposed some years ago by Phelps. The formula in question is based on the assumption that the rate of deoxygenation at any instant is directly proportional to the amount of organic matter present in a sample. In the differential notation:

$$\text{Rate of deoxygenation} = \frac{d(L_a - L)}{dt} = \frac{-dL}{dt} = K' L \dots \dots \dots (1)$$

in which,

$L_a$  = oxygen absorbed during the first stage.

$L$  = oxygen requirement of the sample at the time,  $t$ .

$K'$  = a constant at a given temperature.

The integration of this expression leads directly to the equation:

$$\log \frac{L_a}{L} = \log \frac{L_a}{L_a - X} = Kt \dots \dots \dots (2)$$

in which,

$X$  = oxygen absorbed in  $t$  days (the value generally reported as the oxygen demand of the sample).

$K = 0.4343 K'$  = the deoxygenation constant.

Solving for  $X$  in equation (2), the following expression is obtained:

$$X = L_a (1 - 10^{-Kt}) \dots \dots \dots (3)$$

By the aid of tables giving the value of the term  $(1 - 10^{-Kt})$ , the validity of the Phelps formula may readily be tested. It is only necessary to observe whether a value of  $L_a$  exists which satisfies the condition imposed by equation (3). The agreement between the observed and the computed values is represented graphically by the data plotted in Figure 2, where the average values obtained in 12 separate series of observations have been recorded. In order to place all values on a comparable basis, and for the sake of avoiding a multiplicity of charts, the results have been plotted, not in parts per million, but as a percentage of the oxygen absorbed during the first stage of the deoxygenation. At each temperature the line drawn through these average results is simply the graph of the expression:

$$X = L_a (1 - 10^{-Kt})$$

For periods of incubation of less than 8 days at 30° C., 10 days at 20° C., or 15 days at 9° C., the agreement between the observed and the computed percentage values is excellent.

#### TEMPERATURE CONVERSION FORMULAS

(a) *The value of  $K$  at different temperatures.*—It is also to be noted that in plotting the theoretical curves the value of  $K$  was computed by the equation:

$$K_T = K_{20} (1.047^{T-20}) \text{ ----- (4)}$$

in which,

$K_T$  = the deoxygenation constant at  $T^\circ$  C.

$K_{20}$  = the deoxygenation constant at 20° C. = 0.100.

The indication is that, in the interval from 9° to 30° C., the deoxygenation constant is accurately defined in terms of equation (4).

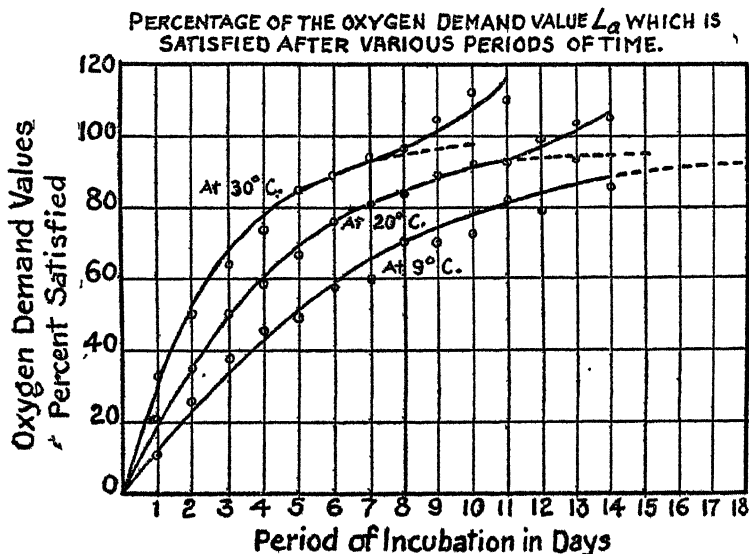


FIG. 2

(b) *The value of  $L_a$  at different temperatures.*—One further point to be considered in connection with Figure 2 is the value of  $L_a$  at different temperatures. Denoting the value of  $L_a$  at 20° C. by 100, the value of  $L_a$  at 9° C. becomes  $78 \pm 5$ . Similarly, the relative value of  $L_a$  at 30° C. is  $120 \pm 7$ . These values may be represented empirically by the equation:

$$(L_a)_T = (L_a)_{20} (0.02 T + 0.60) \text{ ----- (5)}$$

in which,

$(L_a)_T$  = value of  $L_a$  at  $T^\circ$  C.

$(L_a)_{20}$  = value of  $L_a$  at 20° C.

The failure to correct for this variation in the oxidizability of a sample with a change in the temperature of incubation does not lead to serious

error when the temperature differences are small. In extreme cases a suitable correction can readily be applied.

#### APPLICABILITY OF FORMULAS TO STREAM-POLLUTION PROBLEMS

Within certain limits, therefore, the possibility exists of converting an oxygen value obtained at any temperature over any period of incubation into terms of the oxygen demand value which would have been obtained under any other given set of conditions. It is to be borne in mind, however, that the applicability of the formulas is restricted to heavily polluted waters, such as raw river water or recently diluted sewage. By inspection of the data plotted on Figure 1, it is obvious that an entirely different type of deoxygenation curve would be obtained if samples in a more advanced state of oxidation were to be selected. As it is seldom necessary to consider periods of flow exceeding 5 or 10 days below a point of fresh pollution, these limitations are of little consequence in stream-pollution studies. On the whole it appears safe, therefore, to conclude that, when the various formulas discussed in this paper are applied to the average values corresponding to reasonably large groups of observations on recently polluted water, the cumulative error should not exceed 10 per cent. For the purposes of stream-pollution studies, this degree of precision is entirely satisfactory.

#### APPLICABILITY OF FIVE-DAY OXYGEN DEMAND TEST TO SEWAGE TREATMENT PROBLEMS

From the foregoing discussion it may be inferred that for highly polluted waters the oxygen demand values obtained over relatively short periods of incubation possess a clear-cut significance, so that the interpretation of such results offers no difficulty. Attention will now be directed to samples which have reached a higher state of oxidation. The discussion will be conducted with particular reference to sewage-treatment problems.

Considering the data plotted in Figure 1, and assuming that the five-day oxygen demand of the sample at 20° C. had been determined only after a preliminary conditioning period of 7 days, corresponding to the relatively flat portion of the deoxygenation curve, the observed depletion would have been about  $(2.8 - 2.3) = 0.5$  part per million. However, if the examination had been delayed for 15 days, so that nitrification was about ready to start, the observed loss of oxygen would have been about  $(4.1 - 3.1) = 1.0$  part per million. Referred to a sewage effluent which had been diluted 50 times before conducting the test, the two oxygen demand values obtained would have been 25 or 50 parts per million, depending on the amount of preliminary purification which the sample had received. It is noteworthy

that under these special conditions the five-day oxygen demand of the more highly oxidized sample was apparently twice as great as that of the same sample in a less highly purified state. In part the discrepancy arises from the fact that one set of values has been selected from the relatively flat portion of the deoxygenation curve (8 to 14 days at 20° C.).

The findings in this respect have a direct bearing on the calculation of the percentage removal of organic matter effected by a treatment plant, and on similar problems in connection with the operation or the comparison of various types of treatment plants. The usual procedure is to base such calculations on the five-day oxygen demand value of the influent and effluent wastes. In the extreme case in question it is obvious that the percentage values obtained would stand in inverse relation to the purification actually accomplished. It is not inconceivable that a good measure of the efficiency commonly attributed to Imhoff tanks and similar treatment devices may be due to an effect of this nature. For filter effluents, however, the maximum effect produced by the abrupt change in the slope of the curve may generally be discounted, because the nitrification stage should be fully established when such samples are examined. The possibility of error from this source is nevertheless to be borne in mind.

As regards the time required under laboratory conditions to effect the complete oxidation of the organic matter in a polluted water, definite conclusions can hardly be drawn. On the basis of nitrite, nitrate, and free ammonia determinations, it is probably safe to conclude that at 20° C. the oxidation of the purely nitrogenous impurity is virtually completed after 40 or 50 days. Appreciable quantities of dissolved oxygen, however, continue to be absorbed even after several months of incubation at 20° C. (See Fig. 3.) The absorption of oxygen beyond the sixtieth day is probably due to the slow oxidation of celluloselike materials. As it would be impractical to conduct routine tests over such extended periods, it is obviously necessary to conclude that the ultimate oxygen demand of a sample is an indeterminate quantity.

Continuing the discussion of the results derived over long periods of incubation, it appears that when a stage of oxidation has been reached corresponding to that which obtains when a sample of raw sewage is incubated for 30 days at 20° C., the deoxygenation curve is approximately a straight line. (See Figs. 1 and 3.) The five-day oxygen demand of a given type of waste, therefore, should be a constant when a sufficiently high degree of purification is reached. It follows that the percentage purification figures computed on the basis of the five-day oxygen demand test should also tend to be constant when samples in an advanced state of oxidation are examined.

The findings in this respect are in satisfactory accord with the direct observation that the removal of organic matter effected by a representative group of treatment plants was always approximately 90 per cent when partly nitrified effluents only were considered. In view of wide variations in the strength of the raw sewages, in the nature of the treatment devices, and in the methods of operation, this approximate constancy<sup>2</sup> of the percentage purification values obtained was an unlooked-for result.

Finally, it need hardly be pointed out that a statement to the effect that the five-day oxygen demand of a sample is, say, 20 parts per million, is of little significance unless a great deal is known concerning the nature or, more precisely, the state of oxidation of the

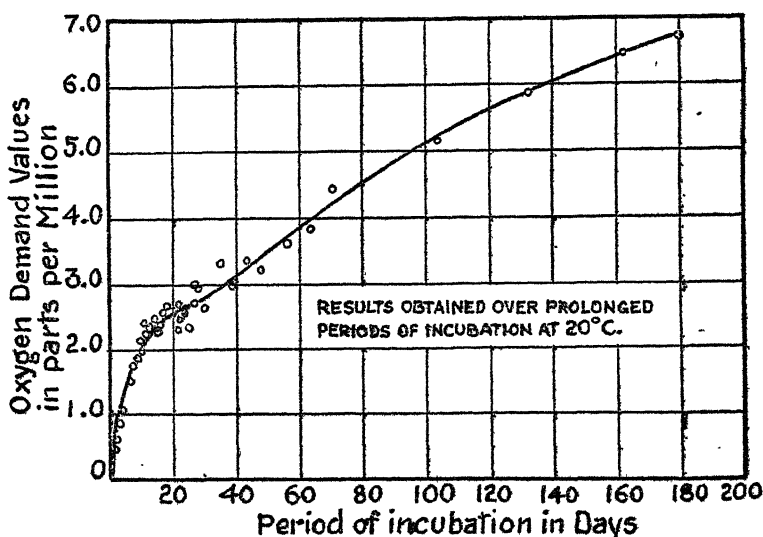


FIG. 3

sample. Thus, a five-day oxygen demand value of 20 parts per million could be referred, with equal reason, to the middle or relatively flat portion of the deoxygenation curve, corresponding to a highly polluted sample, or to the last portion when the nitrification stage has been virtually completed.

#### CORRESPONDENCE BETWEEN ANALYTICAL DATA AND OBSERVED NATURAL CONDITIONS

The results thus far presented, although indicative of great uniformity, could hardly be referred to natural conditions without further supporting data. Evidence to the effect that the oxygen demand values obtained during the first stage of the oxidation are

<sup>2</sup> Sewage treatment in the United States. Public Health Bulletin No. 132, U. S. Public Health Service, p. 29.

directly related to the quantity of organic matter present is given in Table 1. Using the five-day oxygen demand of a raw sewage as a measure of its organic matter content, and given the contributing population and the total flow of sewage, the per capita contribution of organic matter has been computed for places where fairly accurate data were available. The average per capita oxygen requirement is 51.1 grams per day, with an average deviation from this figure of 5 grams. The high value obtained at Columbus, Ohio, is probably due to the presence of relatively large quantities of industrial wastes. Omitting the Columbus result, the average per capita oxygen demand is  $48.8 \pm 3.1$  grams per day. The constancy of the per capita values is remarkable and leads to the conclusion that the five-day oxygen demand of a raw waste is directly proportional to the concentration of organic matter present. Moreover, it is apparent that the rate of deoxygenation of diluted raw sewage is not subject to extreme variations; otherwise, the per capita values derived with different sewages would not be consistent.

TABLE 1.—*Per capita oxygen demand values*

(Base data from Public Health Bulletin No 132, p 115)

Locality	Results, in parts per million			
	Five-day oxygen demand actually observed	Per capita oxygen demand daily	Deviation from mean, $d_1$	Deviation from mean, $d_2$
Alliance, Ohio.....	92	45.6	5.5	3.2
Baltimore, Md.....	120	45.1	6.0	3.7
Canton, Ohio.....	213	51.6	0.5	2.8
Columbus, Ohio.....	190	67.6	16.5	—
Fitchburg, Mass.....	155	51.6	0.5	2.3
Lexington, Ky.....	114	48.5	2.6	0.3
Reading, Pa.....	115	46.1	6.0	3.7
Rochester, N. Y.....	104	53.0	2.8	5.1
Average <sup>1</sup> .....	—	51.1	$\pm 5.0$	—
Average <sup>2</sup> .....	—	48.8	—	$\pm 3.1$

<sup>1</sup> To include all observations.<sup>2</sup> Omitting the Columbus results.

As regards the general course of the oxidation of organic matter under natural conditions, it is well established that, in sewage treatment, nitrification does not begin until considerable preliminary purification has been effected. Moreover, it has recently been demonstrated in experiments conducted at the New Jersey Agricultural Experiment Station that, even in a filter bed, the onset of the nitrification stage is sharply defined. In the Illinois River investigation, nitrification was not observed until a point far removed from the source of initial pollution had been reached. The

exhaustive studies of the Royal Commission on Sewage Disposal of Great Britain also afford instances where the deoxygenation curve represented by Figure 1 was clearly reproduced in streams. Similar curves were also obtained using undiluted sewage. It appears reasonable to assume, therefore, that the phenomena observed in the laboratory actually correspond to natural conditions.

#### CONCLUSIONS

As a result of the foregoing, the following conclusions have been reached:

1. The Phelps formula holds with reasonable accuracy when applied to samples recently polluted with organic matter.

2. For periods of incubation of less than 10 days it is possible to refer the results obtained under standardized laboratory conditions to the actual times of flow and temperatures of a stream.

3. Under aerobic conditions the stabilization of organic matter apparently proceeds in two distinct stages.

4. The rate at which a polluted water is deoxygenated depends largely on the condition of the sample with respect to its state of oxidation.

5. It is necessary to exercise considerable caution in interpreting the results of analyses when the nitrification stage has almost been reached.

6. Absolute values for the purification accomplished by a treatment plant can not be obtained without resorting to protracted incubation.

7. A complete solution of the problem probably depends on the development of methods whereby the state of oxidation of a sample may be determined more readily.

### PNEUMONIA (ALL FORMS) AND INFLUENZA

#### DEATHS IN LARGE CITIES OF THE UNITED STATES DURING THE FIRST THREE WEEKS OF JANUARY, 1925 AND 1926

The following tables give the numbers of deaths from pneumonia (all forms) and influenza during the periods from January 3 to 23, 1926, and from January 4 to 24, 1925, in 72 large cities of the United States. The figures were taken from reports of the health officers of the cities.

77832°—26†—2

## PNEUMONIA (ALL FORMS)

	Week ended—					
	Jan. 10, 1925	Jan. 9, 1926	Jan. 17, 1925	Jan. 16, 1926	Jan. 24, 1925	Jan. 23, 1926
Atlanta.....	10	6	27	12	17	17
Baltimore.....	59	53	56	60	49	56
Birmingham.....	12	13	8	13	18	13
Boston.....	23	37	27	37	40	30
Bridgeport.....	3	4	4	2	3	6
Buffalo.....	9	17	18	11	5	12
Cambridge, Mass.....	5	5	4	2	9	1
Camden.....	5	10	6	8	7	12
Canton.....	5	3	7	8	4	7
Chicago.....	82	89	86	78	75	58
Cincinnati.....	14	10	16	20	10	21
Cleveland.....	21	52	20	29	20	28
Columbus, Ohio.....	8	6	4	6	11	11
Dallas.....	6	10	12	16	15	17
Denver.....	15	6	16	20	21	12
Detroit.....	43	52	41	48	48	39
Duluth.....	3	5	4	4	1	1
Elizabeth.....	7	7	7	5	4	2
El Paso.....	7	8	8	5	3	3
Eric.....	3	5	8	1	1	6
Full River.....	3	3	3	1	3	3
Flint.....	2	2	1	1	4	4
Fort Worth.....	3	7	12	7	7	5
Grand Rapids.....	4	3	1	4	1	2
Hartford.....	6	8	4	10	6	8
Houston.....	9	17	12	12	11	7
Indianapolis.....	20	13	10	11	24	16
Kansas City, Kans.....	6	6	2	2	1	1
Kansas City, Mo.....	12	11	17	8	15	7
Los Angeles.....	23	34	25	16	33	27
Louisville.....	13	23	6	10	10	12
Lowell.....	5	9	4	2	3	1
Lynn.....	1	4	2	1	1	1
Memphis.....	11	13	9	11	19	11
Milwaukee.....	14	14	17	16	9	10
Minneapolis.....	6	11	5	17	9	15
Nashville.....	7	9	7	13	3	3
New Bedford.....	3	6	5	5	5	8
New Haven.....	5	3	10	8	11	7
New Orleans.....	10	22	26	26	12	17
New York.....	287	243	280	286	254	261
Newark.....	22	19	20	25	9	19
Norfolk.....	6	8	5	2	4	5
Oakland.....	9	5	10	6	6	5
Oklahoma City.....	4	5	2	7	3	3
Omaha.....	6	15	5	9	15	5
Philadelphia.....	96	101	114	92	99	99
Pittsburgh.....	16	42	53	27	66	7
Portland, Oreg.....	14	8	7	12	7	11
Providence.....	3	22	7	11	10	9
Reading.....	2	4	4	4	6	6
Richmond.....	7	6	5	5	14	13
Rochester.....	5	8	4	8	9	10
St. Paul.....	7	12	10	10	8	5
Salt Lake City.....	4	4	5	9	6	12
San Antonio.....	11	11	26	9	14	16
San Diego.....	4	6	3	0	1	1
San Francisco.....	18	17	11	13	7	14
Schenectady.....	4	4	6	1	3	3
Scranton.....	8	10	10	10	1	1
Somerville.....	2	2	5	6	1	2
Springfield, Mass.....	3	1	1	1	2	2
Syracuse.....	3	7	6	6	6	3
Tacoma.....	3	2	4	3	4	4
Toledo.....	6	11	6	9	6	11
Trenton.....	7	4	8	7	7	6
Washington.....	13	32	15	30	10	35
Waterbury.....	5	6	3	7	4	1
Wilmington, Del.....	5	7	7	7	3	3
Worcester.....	1	20	4	12	2	12
Yonkers.....	4	1	1	5	5	4
Youngstown.....	5	6	9	5	9	4



## INFLUENZA

	Week ended—					
	Jan. 10, 1925	Jan. 9, 1926	Jan. 17, 1925	Jan. 16, 1926	Jan. 16, 1925	Jan. 23, 1926
Atlanta.....	1	1	3	2	1	1
Baltimore.....	7	5	9	5	3	13
Birmingham.....	2	4	2	6	3	1
Boston.....	2	2	3	2	1	1
Bridgeport.....	1	1	2	1	1	1
Buffalo.....	1	2		2	4	2
Cambridge, Mass.....					1	
Camden.....	2		1		1	1
Canton.....	1	1				1
Chicago.....	4	4	5	2	11	6
Cincinnati.....	5	4	6	4	3	2
Cleveland.....	5	5	1	2	3	
Columbus, Ohio.....		1		1	2	2
Dallas.....	1	3	1	2	2	3
Denver.....	1	5	3	6	1	2
Detroit.....	2	1	3	1	1	
Duluth.....						
Elizabeth.....	1			1		
El Paso.....			5	3	7	5
Eric.....		1			1	4
Fall River.....	2					
Flint.....						
Fort Worth.....		1				
Grand Rapids.....	1	1	1	2	1	
Hartford.....			1	1		1
Houston.....	1		1	5	3	
Indianapolis.....	1		1	1	1	
Kansas City, Kans.....						
Kansas City, Mo.....	5	2		3	7	1
Los Angeles.....	2	3	2		1	1
Louisville.....	1	1		2	1	
Lowell.....		1				
Lynn.....						
Memphis.....		6	3	4	3	3
Milwaukee.....	1	1	1	1	2	1
Minneapolis.....		1			1	
Nashville.....	2	3	2	3	3	6
New Bedford.....						
New Haven.....			1		1	
New Orleans.....	5	6	6	8	9	14
New York.....	19	21	19	17	24	16
Newark.....		3				
Norfolk.....						
Oakland.....		4		2		3
Oklahoma City.....	1				2	1
Omaha.....						
Philadelphia.....	9	6	11	9	9	5
Pittsburgh.....	5	3	4	3	1	
Portland, Oreg.....						
Providence.....			2	1		
Reading.....						
Richmond.....	1		1	1	4	1
Rochester.....	1			1		
St. Paul.....		1		2		3
Salt Lake City.....						
San Antonio.....	1	1	8		4	2
San Diego.....		1				4
San Francisco.....	3	10	1	11	2	8
Schenectady.....		3			2	1
Scranton.....			1			
Somerville.....						
Springfield, Mass.....	2	1	2		1	
Syracuse.....						
Tacoma.....						
Toledo.....		4		1	2	1
Trenton.....	2	2				4
Washington.....	3	2	4	2		2
Waterbury.....		1	1			1
Wilmington, Del.....			1			
Worcester.....						
Yonkers.....			2			
Youngstown.....				1		

## DEATHS DURING WEEK ENDED JANUARY 23, 1926

Summary of information received by telegraph from industrial insurance companies for week ended January 23, 1926, and corresponding week of 1925. (From the Weekly Health Index, January 26, 1926, issued by the Bureau of the Census, Department of Commerce)

	Week ended Jan. 23, 1926	Corresponding week, 1925
Policies in force.....	62, 860, 526	58, 444, 053
Number of death claims.....	13, 869	12, 053
Death claims per 1,000 policies in force, annual rate	11. 5	10. 8

Deaths from all causes in certain large cities of the United States during the week ended January 23, 1926, infant mortality, annual death rate, and comparison with corresponding week of 1925. (From the Weekly Health Index, January 26, 1926, issued by the Bureau of the Census, Department of Commerce)

City	Week ended Jan. 23, 1926		Annual death rate per 1,000 corres- ponding week, 1925	Deaths under 1 year		Infant mortality rate week ended Jan. 23, 1926 <sup>2</sup>
	Total deaths	Death rate <sup>1</sup>		Week ended Jan. 23, 1926	Corres- ponding week, 1925	
Total (68 cities).....	8, 289	14. 9	14. 2	914	942	<sup>3</sup> 74
Akron.....	50			10	3	106
Albany <sup>4</sup> .....	54	23. 9	18. 1	6	3	126
Atlanta.....	78			18	11	
White.....	33			8		
Colored.....	40	( <sup>5</sup> )		10		
Baltimore <sup>4</sup> .....	283	18. 5	17. 0	29	20	85
White.....	229			19		68
Colored.....	54	( <sup>5</sup> )		10		162
Birmingham.....	73	18. 5	15. 7	13	7	
White.....	39			8		
Colored.....	34	( <sup>5</sup> )		5		
Boston.....	237	15. 9	16. 7	18	32	51
Bridgeport.....	43			9	4	133
Buffalo.....	160	15. 5	12. 3	18	19	75
Cambridge.....	29	12. 0	21. 4	1	7	17
Camden.....	39	15. 8	17. 8	7	9	118
Canton.....	26	12. 8	12. 3	4	4	89
Chicago <sup>4</sup> .....	694	12. 1	12. 5	78	103	69
Cincinnati.....	137	17. 5	18. 3	7	20	44
Cleveland.....	186	10. 4	11. 2	25	32	65
Columbus.....	88	16. 4	16. 4	9	8	83
Dallas.....	61	16. 4	17. 0	7	17	
White.....	42			6		
Colored.....	19	( <sup>5</sup> )		1		
Dayton.....	32	9. 6	9. 6	5	2	79
Denver.....	66	12. 3	18. 0	10	13	
Des Moines.....	40	14. 0	7. 3	3	5	50
Detroit.....	348	14. 6	10. 6	72	38	116
Duluth.....	20	9. 4	7. 1	4	4	94
El Paso.....	33	16. 4	19. 9	4	10	
Erie.....	38			4	5	76
Fall River <sup>4</sup> .....	37	15. 0	8. 5	6	5	87
Flint.....	17	6. 8	5. 2	4	2	66
Fort Worth.....	28	9. 6	9. 2	2	3	
White.....	22			2		
Colored.....	6	( <sup>5</sup> )		0		
Grand Rapids.....	35	11. 9	13. 2	4	4	58
Houston.....	48	15. 2	19. 9	7	10	
White.....	32			4		
Colored.....	16	( <sup>5</sup> )		3		
Indianapolis.....	102	14. 8	14. 8	7	7	51
White.....	86			4		34
Colored.....	16	( <sup>5</sup> )		3		165
Jacksonville, Fla.....	52	25. 8	17. 4	5	2	109
White.....	27			4		
Colored.....	25	( <sup>5</sup> )		1		

<sup>1</sup> Annual rate per 1,000 population.

<sup>2</sup> Deaths under 1 year per 1,000 births—an annual rate based on deaths under 1 year for the week and estimated births for 1924. Cities left blank are not in the registration area for births.

<sup>3</sup> Data for 63 cities.

<sup>4</sup> Deaths for week ended Friday, Jan. 22, 1926.

<sup>5</sup> In the cities for which deaths are shown by color, the colored population in 1920 constituted the following percentage of the total population: Atlanta 31, Baltimore 15, Birmingham 39, Dallas 15, Fort Worth 14, Houston 25, Kansas City, Kans., 14, Louisville 17, Memphis 38, Nashville 30, New Orleans 26, Norfolk 38, Richmond 32, and Washington, D. C., 25.

Deaths from all causes in certain large cities of the United States during the week ended January 23, 1926, infant mortality, annual death rate, and comparison with corresponding week of 1925. (From the Weekly Health Index, January 26, 1926, issued by the Bureau of the Census, Department of Commerce)—Continued.

City	Week ended Jan. 23, 1926		Annual death rate per 1,000 corresponding week, 1925	Deaths under 1 year		Infant mortality rate week ended Jan. 23, 1926
	Total deaths	Death rate		Week ended Jan. 23, 1926	Corresponding week, 1925	
Jersey City.....	90	14.9	13.9	12	10	85
Kansas City, Kans.....	25	11.2	14.4	1	10	17
White.....	15			1		21
Colored.....	10	(9)		0		0
Kansas City, Mo.....	94	13.3	13.6	9	12	
Los Angeles.....	248			25	28	60
Louisville.....	92	15.9	14.0	7	5	60
White.....	76			6		60
Colored.....	16	(9)		1		63
Lowell.....	35	16.5	9.9	5	1	93
Lynn.....	28	14.2	14.2	2	1	50
Memphis.....	70	20.9	29.0	12	8	
White.....	39			7		
Colored.....	31	(9)		5		
Milwaukee.....	117	12.2	10.0	21	20	97
Minneapolis.....	102	12.5	12.9	10	19	56
Nashville <sup>4</sup> .....	63	24.1	16.8	5	9	
White.....	39			3		
Colored.....	24	(9)		2		
New Bedford.....	33	14.4	10.9	5	5	87
New Haven.....	48	14.0	16.0	0	5	0
New Orleans.....	181	22.8	20.4	15	21	
White.....	118			10		
Colored.....	63	(9)		5		
New York.....	1,689	15.6	14.2	176	160	71
Bronx Borough.....	207	12.4	11.3	12	13	40
Brooklyn Borough.....	589	13.9	13.4	66	59	67
Manhattan Borough.....	710	19.0	18.2	77	73	85
Queens Borough.....	146	10.7	9.8	17	15	77
Richmond Borough.....	37	14.0	12.4	4	0	70
Newark, N. J.....	118	13.6	14.6	16	18	77
Norfolk.....	39			1	3	19
White.....	23			1		30
Colored.....	16	(9)		0		0
Oakland.....	73	15.0	12.1	8	7	93
Oklahoma City.....	23			1	5	
Omaha.....	62	15.3	14.5	7	8	73
Paterson.....	31	11.4	14.7	2	2	35
Philadelphia.....	603	15.9	14.8	69	54	92
Pittsburgh.....	178	14.5	19.0	19	32	63
Portland, Oreg.....	74	13.7	12.2	4	3	41
Providence.....	63	12.3	13.4	3	6	25
Richmond.....	75	21.0	20.1	12	8	151
White.....	34			1		20
Colored.....	41	(9)		11		385
Rochester.....	103	17.0	11.9	9	5	72
St. Louis.....	249	15.8	15.9	24	22	
St. Paul.....	43	9.1	12.7	2	4	13
Salt Lake City <sup>4</sup> .....	42	16.7	13.1	5	6	69
San Antonio.....	77	20.3	18.2	13	15	
San Diego.....	41	20.2	23.6	1	5	21
San Francisco.....	226	21.1	14.8	9	7	54
Schenectady.....	29	16.3	18.0	2	6	58
Seattle.....	70			3	6	28
Somerville.....	26	13.7	10.0	3	2	78
Springfield, Mass.....	30	11.0	12.5	1	5	14
Syracuse.....	47	13.5	13.8	4	6	51
Tacoma.....	20	10.0	10.0	2	0	47
Toledo.....	89	16.1	11.4	11	13	107
Trenton.....	54	21.3	19.0	11	5	184
Washington, D. C.....	181	19.0	14.7	17	13	96
White.....	131			10		
Colored.....	50	(9)		7		
Waterbury.....	28			4	4	86
Wilmington, Del.....	36	15.4	15.0	8	5	188
Worcester.....	59	18.1	10.4	7	7	81
Yonkers.....	38	17.4	11.0	4	3	90
Youngstown.....	32	10.4	14.7	6	3	76

<sup>4</sup> Deaths for week ended Friday, Jan. 22, 1926.

<sup>5</sup> In the cities for which deaths are shown by color, the colored population in 1920 constituted the following percentage of the total population: Atlanta 31, Baltimore 15, Birmingham 33, Dallas 15, Fort Worth 14, Houston 25, Kansas City, Kans., 14, Louisville 17, Memphis 33, Nashville 30, New Orleans 26, Norfolk 33, Richmond 32, and Washington, D. C., 25.

# PREVALENCE OF DISEASE

*No health department, State or local, can effectively prevent or control disease without knowledge of when, where, and under what conditions cases are occurring*

## UNITED STATES

### CURRENT WEEKLY STATE REPORTS

These reports are preliminary and the figures are subject to change when later returns are received by the State health officers

#### Reports for Week Ended January 30, 1926

ALABAMA		CALIFORNIA	
	Cases		Cases
Chicken pox.....	53	Cerebrospinal meningitis.....	
Diphtheria.....	16	Los Angeles.....	2
Influenza.....	326	Los Angeles County.....	2
Malaria.....	8	San Diego Naval Training Station.....	7
Measles.....	21	Chicken pox.....	270
Mumps.....	55	Diphtheria.....	123
Pellagra.....	7	Influenza.....	755
Pneumonia.....	198	Leprosy—Tracy.....	1
Scarlet fever.....	18	Lethargic encephalitis—Los Angeles.....	1
Smallpox.....	26	Measles.....	62
Tetanus.....	1	Mumps.....	186
Tuberculosis.....	32	Poliomyelitis:	
Typhoid fever.....	9	Oakland.....	1
Whooping cough.....	34	Salinas.....	1
		San Francisco.....	1
		San Leandro.....	1
		Scarlet fever.....	103
		Smallpox:	
		Los Angeles.....	40
		Los Angeles County.....	12
		Scattering.....	34
		Typhoid fever.....	7
		Whooping cough.....	53
		COLORADO	
		Chicken pox.....	91
		Diphtheria.....	19
		Measles.....	8
		Mumps.....	3
		Pneumonia.....	7
		Poliomyelitis.....	1
		Scarlet fever.....	32
		Tuberculosis.....	22
		Typhoid fever.....	1
		Whooping cough.....	57
		CONNECTICUT	
		Chicken pox.....	179
		Diphtheria.....	49
		German measles.....	13
		Influenza.....	12
		Lethargic encephalitis.....	1

CONNECTICUT—continued		ILLINOIS—continued	
	Cases		Cases
Measles.....	779	Measles.....	610
Mumps.....	30	Pneumonia.....	407
Pneumonia (broncho).....	32	Poliomyelitis:	
Pneumonia (lobar).....	55	Cook County.....	1
Scarlet fever.....	109	Henry County.....	1
Septic sore throat.....	7	Macon County.....	1
Tuberculosis (all forms).....	24	Scarlet fever.....	443
Typhoid fever.....	3	Smallpox:	
Whooping cough.....	88	Logan County.....	11
DELAWARE		Scattering.....	30
Chicken pox.....	8	Tuberculosis.....	180
Diphtheria.....	5	Typhoid fever.....	26
Measles.....	84	Whooping cough.....	150
Mumps.....	1	INDIANA	
Pneumonia.....	3	Cerebrospinal meningitis.....	1
Scarlet fever.....	11	Chicken pox.....	51
Tuberculosis.....	4	Diphtheria.....	34
FLORIDA		Influenza.....	42
Cerebrospinal meningitis.....	3	Jaundice (epidemic).....	3
Chicken pox.....	38	Measles.....	175
Diphtheria.....	18	Mumps.....	1
Influenza.....	25	Pneumonia.....	27
Malaria.....	3	Poliomyelitis.....	2
Measles.....	4	Scarlet fever.....	228
Mumps.....	18	Smallpox.....	121
Pneumonia.....	9	Tuberculosis.....	49
Scarlet fever.....	8	Typhoid fever.....	2
Smallpox.....	84	Whooping cough.....	37
Tuberculosis.....	14	IOWA	
Typhoid fever.....	6	Chicken pox.....	47
Whooping cough.....	4	Diphtheria.....	17
GEORGIA		German measles.....	4
Actinomycosis.....	1	Measles.....	214
Chicken pox.....	21	Mumps.....	44
Conjunctivitis (acute).....	2	Pneumonia.....	6
Diphtheria.....	20	Scarlet fever.....	51
Dysentery.....	1	Smallpox.....	29
Hookworm disease.....	1	Tuberculosis.....	23
Influenza.....	443	Typhoid fever.....	6
Malaria.....	5	Whooping cough.....	18
Measles.....	10	KANSAS	
Mumps.....	31	Cerebrospinal meningitis—Ottawa.....	1
Pellagra.....	1	Chicken pox.....	93
Pneumonia.....	136	Diphtheria.....	26
Scarlet fever.....	9	German measles.....	2
Septic sore throat.....	11	Influenza.....	50
Smallpox.....	17	Measles.....	41
Tuberculosis.....	13	Mumps.....	20
Typhoid fever.....	15	Pneumonia.....	108
Whooping cough.....	20	Poliomyelitis:	
IDAHO		Linn.....	1
Cerebrospinal meningitis—Moscow.....	2	Wichita.....	1
Chicken pox.....	7	Scarlet fever.....	94
Diphtheria.....	7	Smallpox.....	9
Measles.....	1	Trachoma.....	1
Mumps.....	3	Tuberculosis.....	29
Pneumonia.....	1	Typhoid fever.....	2
Scarlet fever.....	10	Whooping cough.....	80
Smallpox.....	7	LOUISIANA	
ILLINOIS		Diphtheria.....	23
Cerebrospinal meningitis—Cook County.....	1	Influenza.....	120
Diphtheria.....	102	Malaria.....	2
Influenza.....	43	Pneumonia.....	46

LOUISIANA—continued		MINNESOTA	
	Cases		Cases
Scarlet fever.....	7	Chicken pox.....	152
Smallpox.....	42	Diphtheria.....	53
Tuberculosis.....	30	Influenza.....	3
Typhoid fever.....	12	Measles.....	35
Whooping cough.....	6	Pneumonia.....	1
		Poliomyelitis.....	2
MAINE		Scarlet fever.....	401
Chicken pox.....	58	Smallpox.....	4
Diphtheria.....	2	Tuberculosis.....	40
German measles.....	3	Typhoid fever.....	2
Influenza.....	14	Whooping cough.....	46
Measles.....	19		
Mumps.....	27	MISSISSIPPI	
Paratyphoid fever.....	1	Diphtheria.....	13
Pneumonia.....	32	Poliomyelitis.....	1
Scarlet fever.....	33	Scarlet fever.....	9
Septic sore throat.....	9	Smallpox.....	8
Tuberculosis.....	9	Typhoid fever.....	3
Typhoid fever.....	2		
Vincent's angina.....	3	MISSOURI	
Whooping cough.....	32	(Exclusive of Kansas City)	
		Cerebrospinal meningitis.....	1
MARYLAND <sup>1</sup>		Chicken pox.....	52
Chicken pox.....	164	Diphtheria.....	72
Diphtheria.....	31	Epidemic sore throat.....	4
Dysentery.....	2	Influenza.....	22
German measles.....	7	Measles.....	41
Influenza.....	1,073	Mumps.....	56
Lethargic encephalitis.....	1	Ophthalmia neonatorum.....	7
Measles.....	1,249	Pneumonia.....	163
Mumps.....	120	Scarlet fever.....	7
Pneumonia (broncho).....	127	Smallpox.....	1
Pneumonia (lobar).....	145	Trachoma.....	45
Scarlet fever.....	49	Tuberculosis.....	22
Tuberculosis.....	117		
Typhoid fever.....	8	MONTANA <sup>2</sup>	
Whooping cough.....	61	Chicken pox.....	56
		Diphtheria.....	17
MASSACHUSETTS		German measles.....	23
Cerebrospinal meningitis.....	2	Influenza.....	1
Chicken pox.....	287	Lethargic encephalitis.....	1
Conjunctivitis (suppurative).....	7	Measles.....	16
Diphtheria.....	79	Mumps.....	93
German measles.....	75	Scarlet fever.....	74
Influenza.....	16	Smallpox.....	18
Lethargic encephalitis.....	1	Tuberculosis.....	8
Malaria.....	1	Typhoid fever.....	2
Measles.....	1,584	Whooping cough.....	39
Mumps.....	115		
Ophthalmia neonatorum.....	14	NEBRASKA	
Pneumonia (lobar).....	135	Chicken pox.....	25
Poliomyelitis.....	2	Diphtheria.....	5
Scarlet fever.....	358	Influenza.....	2
Septic sore throat.....	4	Measles.....	1
Tuberculosis (pulmonary).....	106	Mumps.....	2
Tuberculosis (other forms).....	59	Scarlet fever.....	27
Typhoid fever.....	6	Smallpox.....	13
Whooping cough.....	469	Tuberculosis.....	3
		Whooping cough.....	5
MICHIGAN			
Diphtheria.....	86	NEW JERSEY	
Measles.....	1,601	Cerebrospinal meningitis.....	2
Pneumonia.....	159	Chicken pox.....	430
Scarlet fever.....	340	Diphtheria.....	101
Smallpox.....	15	Influenza.....	21
Tuberculosis.....	171		
Typhoid fever.....	7		
Whooping cough.....	223		

<sup>1</sup> Week ended Friday.<sup>2</sup> Report for two weeks ended Jan. 30, 1926.

## NEW JERSEY—continued

	Cases
Measles.....	1,401
Pneumonia.....	218
Scarlet fever.....	207
Smallpox.....	2
Typhoid fever.....	9
Whooping cough.....	73

## NEW MEXICO

Cerebrospinal meningitis.....	1
Chicken pox.....	54
Conjunctivitis.....	1
Diphtheria.....	2
Influenza.....	3
Measles.....	1
Mumps.....	22
Pneumonia.....	24
Scarlet fever.....	22
Smallpox.....	2
Tuberculosis.....	97
Whooping cough.....	23

## NEW YORK

(Exclusive of New York City)

Cerebrospinal meningitis.....	2
Chicken pox.....	434
Diphtheria.....	81
German measles.....	290
Influenza.....	43
Lethargic encephalitis.....	1
Measles.....	928
Mumps.....	142
Ophthalmia neonatorum.....	2
Pneumonia.....	309
Poliomyelitis.....	2
Scarlet fever.....	266
Septic sore throat.....	3
Trachoma.....	1
Typhoid fever.....	28
Vincent's angina.....	10
Whooping cough.....	332

## NORTH CAROLINA

Cerebrospinal meningitis.....	1
Chicken pox.....	170
Diphtheria.....	34
German measles.....	41
Measles.....	162
Scarlet fever.....	47
Smallpox.....	58
Typhoid fever.....	6
Whooping cough.....	111

## OKLAHOMA

(Exclusive of Tulsa and Oklahoma City)

Cerebrospinal meningitis:	
Mayes.....	1
Tulsa.....	1
Chicken pox.....	29
Diphtheria.....	15
Influenza.....	451
Malaria.....	10
Measles.....	7
Mumps.....	3

\* Deaths.

## OKLAHOMA—continued

	Cases
Pellagra.....	3
Pneumonia.....	211
Scarlet fever.....	21
Smallpox.....	10
Typhoid fever.....	14
Whooping cough.....	51

## OREGON

Cerebrospinal meningitis.....	1
Chicken pox.....	15
Diphtheria.....	16
Influenza.....	49
Measles.....	14
Mumps.....	38
Pneumonia <sup>3</sup> .....	216
Scarlet fever.....	49
Smallpox:	
Deschutes County.....	33
Linn County.....	26
Morrow County.....	11
Portland.....	10
Scattering.....	23
Tuberculosis.....	7
Typhoid fever.....	4
Whooping cough.....	44

## PENNSYLVANIA

Cerebrospinal meningitis—Dayton.....	1
Chicken pox.....	929
Diphtheria.....	180
German measles.....	73
Impetigo contagiosa.....	9
Lethargic encephalitis.....	2
Measles.....	2,508
Mumps.....	204
Ophthalmia neonatorum—Philadelphia.....	1
Pneumonia.....	120
Scabies.....	8
Scarlet fever.....	619
Tetanus—Pittsburgh.....	1
Tuberculosis.....	106
Typhoid fever.....	23
Whooping cough.....	381

## RHODE ISLAND

Chicken pox.....	8
Diphtheria.....	7
German measles.....	1
Influenza.....	9
Measles.....	513
Mumps.....	4
Pneumonia.....	1
Scarlet fever.....	10
Tuberculosis.....	5
Typhoid fever—Woonsocket.....	1
Whooping cough.....	16

## SOUTH DAKOTA

Chicken pox.....	11
Diphtheria.....	4
Measles.....	7
Mumps.....	57
Pneumonia.....	3
Scarlet fever.....	54
Smallpox.....	2

## TENNESSEE

	Cases
Cerebrospinal meningitis—Hardin County..	1
Chicken pox.....	39
Diphtheria.....	7
Influenza.....	137
Malaria.....	3
Measles.....	200
Ophthalmia neonatorum.....	3
Pellagra.....	5
Pneumonia.....	129
Scarlet fever.....	14
Smallpox.....	6
Tuberculosis.....	35
Typhoid fever.....	3
Whooping cough.....	10

## TEXAS

Cerebrospinal meningitis.....	2
Chicken pox.....	57
Diphtheria.....	27
Influenza.....	114
Lethargic encephalitis.....	1
Measles.....	9
Mumps.....	17
Pellagra.....	1
Pneumonia.....	34
Scarlet fever.....	29
Smallpox.....	88
Tuberculosis.....	19
Typhoid fever.....	10
Whooping cough.....	43

## UTAH

Cerebrospinal meningitis—Salt Lake City...	1
Chicken pox.....	85
Diphtheria.....	11
Influenza.....	662
Measles.....	2
Mumps.....	25
Pneumonia.....	31
Polioomyelitis—Salt Lake City.....	1
Scarlet fever.....	11
Smallpox.....	5
Typhoid fever.....	1
Whooping cough.....	25

## VERMONT

Chicken pox.....	15
Diphtheria.....	2
Measles.....	3
Mumps.....	1
Scarlet fever.....	12
Typhoid fever.....	1
Whooping cough.....	25

## VIRGINIA

Smallpox.....	8
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## WASHINGTON

Cerebrospinal meningitis:	
Seattle.....	1
Spokane.....	4
Stevens County.....	3

## WASHINGTON—continued

	Cases
Chicken pox.....	137
Diphtheria.....	13
German measles.....	21
Influenza.....	3
Measles.....	16
Mumps.....	162
Scarlet fever.....	101
Smallpox:	
Tacoma.....	28
Scattering.....	55
Tuberculosis.....	33
Typhoid fever.....	1
Whooping cough.....	52

## WEST VIRGINIA

Diphtheria.....	8
Scarlet fever.....	6
Smallpox.....	2
Typhoid fever.....	1

## WISCONSIN

Milwaukee:	
Cerebrospinal meningitis.....	1
Chicken pox.....	110
Diphtheria.....	28
German measles.....	6
Measles.....	10
Mumps.....	33
Pneumonia.....	28
Scarlet fever.....	27
Tuberculosis.....	20
Typhoid fever.....	1
Whooping cough.....	63
Scattering:	
Cerebrospinal meningitis.....	1
Chicken pox.....	205
Diphtheria.....	30
German measles.....	4
Influenza.....	52
Measles.....	167
Mumps.....	183
Pneumonia.....	29
Scarlet fever.....	144
Smallpox.....	27
Tuberculosis.....	32
Typhoid fever.....	5
Whooping cough.....	113

## WYOMING

Cerebrospinal meningitis:	
Lincoln.....	1
Platte.....	1
Chicken pox.....	5
Diphtheria.....	1
Influenza.....	10
Measles.....	1
Mumps.....	13
Paratyphoid fever.....	1
Scarlet fever.....	12
Smallpox.....	4
Tuberculosis (pulmonary).....	1
Whooping cough.....	5

\*Incomplete report.



## Reports for Week Ended January 23, 1926

DISTRICT OF COLUMBIA		NORTH DAKOTA—continued	
	Cases		Cases
Chicken pox.....	27	German measles.....	26
Diphtheria.....	21	Influenza.....	1
Influenza.....	2	Measles.....	20
Measles.....	26	Mumps.....	60
Pneumonia.....	97	Pneumonia.....	16
Scarlet fever.....	27	Scarlet fever.....	94
Tuberculosis.....	24	Smallpox.....	7
Whooping cough.....	22	Tuberculosis.....	5
NORTH DAKOTA		Typhoid fever.....	2
Chicken pox.....	16	Whooping cough.....	22
Diphtheria.....	2		

## SUMMARY OF MONTHLY REPORTS FROM STATES

The following summary of monthly State reports is published weekly and covers only those States from which reports are received during the current week:

State	Cerebro-spinal meningitis	Diphtheria	Influenza	Malaria	Measles	Polio-myelitis	Scarlet fever	Smallpox	Typhoid fever
<b>For December, 1925</b>									
California.....	25	547	367	3	131	9	23	667	278
District of Columbia.....	0	106	9		27	2	1	89	0
Kansas.....	6	95	36	1	84	3	4	233	15
Maine.....	3	15	7	0	13	0	0	126	0
Mississippi.....	2	159	4,009	2,567	1,209	214	3	88	77
Missouri.....		316	58	1	60		3	660	37
New York.....	15	1,053	180	3	7,311		28	1,503	2
Oregon.....	11	159	32		24			213	93
Rhode Island.....	1	117	32	0	1,385	0	0	64	0
South Carolina.....		288	1,960	328	34			65	58
Tennessee <sup>1</sup> .....	2	89	221	29	108	12	4	178	27
Washington.....	14	92	1		68		1	384	322
West Virginia.....	2	129	127		267		1	234	3
Wyoming.....	0	7	4	0	2	0	0	52	25

<sup>1</sup> Reports incomplete.

## PLAGUE-ERADICATIVE MEASURES IN THE UNITED STATES

The following items were taken from the reports of plague-eradication measures from the cities named:

*Los Angeles, Calif.*

Week ended Jan. 16, 1926:

Number of rats trapped.....	3,424
Number of rats found to be plague infected.....	0
Number of squirrels examined.....	816
Number of squirrels found to be plague infected.....	0
Number of mice trapped.....	3,415
Number of mice found to be plague infected.....	0

Date of discovery of last plague-infected rodent, Nov. 6, 1925.

Date of last human case, Jan. 15, 1925.

*Oakland, Calif.*

(Including other East Bay communities)

Week ended Jan. 16, 1926:

Number of rats trapped.....	428
Number of rats found to be plague infected.....	0

Totals:

Number of rats trapped Jan. 1, 1925 to Jan. 16, 1926.....	80,289
Number of rats found to be plague infected.....	21
Number of squirrels examined May 1 to Aug. 1, 1925.....	7,277
Number of squirrels found to be plague infected.....	0
Number of mice trapped Jan. 1, 1925 to Jan. 16, 1926.....	31,036

Date of discovery of last plague-infected rat, Mar. 4, 1925.

Date of last human case, Sept. 10, 1919.

**GENERAL CURRENT SUMMARY AND WEEKLY REPORTS FROM CITIES**

*Diphtheria*.—For the week ended January 16, 1926, 36 States reported 1,405 cases of diphtheria. For the week ended January 17, 1925, the same States reported 1,783 cases of this disease. One hundred and two cities, situated in all parts of the country and having an aggregate population of more than 30,300,000, reported 850 cases of diphtheria for the week ended January 16, 1926. Last year for the corresponding week they reported 959 cases. The estimated expectancy for these cities was 1,194 cases. The estimated expectancy is based on the experience of the last nine years, excluding epidemics.

*Measles*.—Thirty-three States reported 7,955 cases of measles for the week ended January 16, 1926, and 1,931 cases of this disease for the week ended January 17, 1925. One hundred and two cities reported 5,687 cases of measles for the week this year, and 1,063 cases last year.

*Poliomyelitis*.—The health officers of 38 States reported 14 cases of poliomyelitis for the week ended January 16, 1926. The same States reported 21 cases for the week ended January 17, 1925.

*Scarlet fever*.—Scarlet fever was reported for the week as follows: Thirty-six States—this year, 3,714 cases; last year, 4,026 cases; 102 cities—this year, 1,664 cases; last year, 1,972 cases; estimated expectancy, 1,198 cases.

*Smallpox*.—For the week ended January 16, 1926, 36 States reported 879 cases of smallpox. Last year for the corresponding week they reported 1,249 cases. One hundred and two cities reported smallpox for the week as follows: 1926, 274 cases; 1925, 319 cases; estimated expectancy 106 cases. Three deaths from smallpox were reported by these cities for the week this year—at Los Angeles, Calif.

*Typhoid fever*.—Two hundred and fifty-two cases of typhoid fever were reported for the week ended January 16, 1926, by 35 States. For the corresponding week of 1925, the same States reported 293

cases of this disease. One hundred and two cities reported 63 cases of typhoid fever for the week this year and 116 cases for the corresponding week last year. The estimated expectancy for these cities was 56 cases.

*Influenza and pneumonia.*—Deaths from influenza and pneumonia were reported for the week by 95 cities, with a population of more than 29,600,000, as follows: 1926, 1,329 deaths; 1925, 1,270.

*City reports for week ended January 16, 1926*

The "estimated expectancy" given for diphtheria, poliomyelitis, scarlet fever, smallpox, and typhoid fever is the result of an attempt to ascertain from previous occurrence how many cases of the disease under consideration may be expected to occur during a certain week in the absence of epidemics. It is based on reports to the Public Health Service during the past nine years. It is in most instances the median number of cases reported in the corresponding week of the preceding years. When the reports include several epidemics or when for other reasons the median is unsatisfactory, the epidemic periods are excluded and the estimated expectancy is the mean number of cases reported for the week during nonepidemic years.

If reports have not been received for the full nine years, data are used for as many years as possible, but no year earlier than 1917 is included. In obtaining the estimated expectancy, the figures are smoothed when necessary to avoid abrupt deviations from the usual trend. For some of the diseases given in the table the available data were not sufficient to make it practicable to compute the estimated expectancy.

Division, State, and city	Population July 1, 1925, estimated	Chick- en pox, cases re- ported	Diphtheria		Influenza		Meas- les, cases re- ported	Mumps, cases re- ported	Pneu- monia, deaths re- ported
			Cases, esti- mated expectancy	Cases re- ported	Cases re- ported	Deaths re- ported			
NEW ENGLAND									
Maine:									
Portland.....	75,333	1	2	0	1	0	4	6	1
New Hampshire:									
Concord.....	22,546	0	0	0	0	1	2	3	1
Vermont:									
Barre.....	10,008	0	0	0	0	0	0	0	0
Massachusetts:									
Boston.....	779,620	58	65	29	2	2	160	18	37
Fall River.....	128,993	1	6	6	0	0	188	6	1
Springfield.....	142,065	14	4	1	0	0	35	0	1
Worcester.....	180,757	1	6	7	0	0	167	1	12
Rhode Island:									
Pawtucket.....	69,760	8	2	0	0	0	29	0	4
Providence.....	267,918	0	12	7	0	1	454	0	11
Connecticut:									
Bridgeport.....	(1)	0	9	7	1	1	110	0	2
Hartford.....	160,197	12	8	4	0	1	31	0	10
New Haven.....	178,927	34	5	0	0	0	33	0	8
MIDDLE ATLANTIC									
New York:									
Buffalo.....	538,016	22	20	8	0	2	8	1	11
New York.....	5,873,356	247	222	167	56	17	1,236	33	286
Rochester.....	316,786	41	10	16	0	1	50	0	8
Syracuse.....	182,003	34	10	1	0	0	8	10	6
New Jersey:									
Camden.....	128,642	21	5	3	0	0	27	0	8
Newark.....	452,513	96	20	8	4	0	121	5	25
Trenton.....	132,020		6						
Pennsylvania:									
Philadelphia.....	1,979,364	196	78	89	1	9	226	26	92
Pittsburg.....	631,563	47	25	10	0	3	17	13	27
Reading.....	112,707	10	5	1	0	0	4	0	4
EAST NORTH CENTRAL									
Ohio:									
Cincinnati.....	400,333	11	12	7	0	4	1	0	20
Cleveland.....	936,485	51	37	27	2	2	690	0	29
Columbus.....	279,836	19	5	1	0	1	10	0	6
Toledo.....	287,380	26	10	12	0	1	39	0	9

<sup>1</sup> No estimate made.

## City reports for week ended January 16, 1926—Continued

Division, State, and city	Population July 1, 1925, estimated	Chicken pox, cases re-reported	Diphtheria		Influenza		Measles, cases re-reported	Mumps, cases re-reported	Pneumonia, deaths re-reported
			Cases, estimated expectancy	Cases re-reported	Cases re-reported	Deaths re-reported			
EAST NORTH CENTRAL—continued									
Indiana:									
Fort Wayne.....	97,846	3	5	1	0	1	0	0	4
Indianapolis.....	358,819		15	4	0	1	198		11
South Bend.....	80,091	10	1	0	0	0	1	0	3
Terre Haute.....	71,071	1	1	1	0	0	4	0	0
Illinois:									
Chicago.....	2,995,239	122	131	71	7	2	67	11	78
Peoria.....	81,564	4	2	1	0	0	1	4	2
Springfield.....	63,923	3	2	1	1	0	1	3	1
Michigan:									
Detroit.....	1,245,824	85	72	39	9	1	910	3	48
Flint.....	130,316	5	9	2	0	0	8	1	1
Grand Rapids.....	153,608	8	5	2	0	2	11	1	4
Wisconsin:									
Madison.....	46,385	27	0	0	0	0	2	2	0
Milwaukee.....	509,192	151	21	41	1	1	7	28	16
Racine.....	67,707	3	2	1	1	1	1	1	2
Superior.....	39,671	0	1	0	0	0	0	0	2
WEST NORTH CENTRAL									
Minnesota:									
Duluth.....	110,502	9	3	0	0	0	0	0	4
Minneapolis.....	425,435	84	22	32	0	0	7	0	17
St. Paul.....	246,001	47	17	23	0	2	4	12	10
Iowa:									
Davenport.....	(1)	1	1	2	0	-----	1	0	-----
Des Moines.....	(1)	2	4	4	0	-----	3	0	-----
Sioux City.....	(1)	8	2	0	0	-----	2	0	-----
Waterloo.....	36,771	1	0	0	0	-----	1	1	-----
Missouri:									
Kansas City.....	367,481	30	11	8	3	3	33	3	8
St. Joseph.....	78,342	2	4	0	0	2	0	0	5
St. Louis.....	821,543	31	55	59	1	1	11	5	-----
North Dakota:									
Fargo.....	26,403	5	0	0	0	0	5	38	2
Grand Forks.....	14,811	6	0	0	0	-----	0	0	-----
South Dakota:									
Aberdeen.....	15,036	0	1	0	0	0	1	38	-----
Sioux Falls.....	30,127	3	1	0	0	-----	0	0	-----
Nebraska:									
Lincoln.....	60,941	12	3	1	0	0	0	1	3
Omaha.....	211,768	7	5	2	0	0	1	0	9
Kansas:									
Topeka.....	55,411	12	2	2	0	1	0	0	2
Wichita.....	88,367	18	4	2	0	0	0	0	3
SOUTH ATLANTIC									
Delaware:									
Wilmington.....	122,049	1	2	1	0	0	17	1	7
Maryland:									
Baltimore.....	796,296	132	30	16	55	5	653	117	60
Cumberland.....	33,741	0	1	2	0	0	3	0	0
Frederick.....	12,035	0	0	0	0	0	3	0	0
District of Columbia:									
Washington.....	497,906	22	20	26	6	2	19	0	30
Virginia:									
Lynchburg.....	30,395	24	1	2	0	0	1	2	0
Norfolk.....	(1)	21	3	3	0	0	4	1	2
Richmond.....	186,403	11	7	7	0	1	3	1	5
Roanoke.....	58,208	5	2	0	0	1	1	1	2
West Virginia:									
Charleston.....	49,019	0	2	1	0	0	0	4	4
Huntington.....	63,485	0	2	3	0	1	0	0	5
Wheeling.....	56,208	1	2	1	0	0	1	0	3
North Carolina:									
Raleigh.....	30,371	1	1	2	0	1	0	0	4
Wilmington.....	37,061	5	0	0	0	0	0	2	1
Winston-Salem.....	69,031	9	1	1	0	0	16	3	5

1 No estimate made.

## City reports for week ended January 16, 1926—Continued

Division, State, and city	Population July 1, 1925, estimated	Chicken pox, cases reported	Diphtheria		Influenza		Measles, cases reported	Mumps, cases reported	Pneumonia, deaths reported
			Cases, estimated expectancy	Cases reported	Cases reported	Deaths reported			
SOUTH ATLANTIC—con.									
South Carolina:									
Charleston.....	73, 125	1	1	2	0	0	0	0	4
Columbia.....	41, 226	2	1	0	0	0	0	1	0
Greenville.....	27, 311	2	0	0	0	0	0	0	0
Georgia:									
Atlanta.....	(1)	4	3	7	54	2	1	0	12
Brunswick.....	16, 809	0	0	0	10	0	0	0	0
Savannah.....	93, 134	2	2	3	16	0	0	1	5
Florida:									
Tampa.....	94, 743	6	1	1	0	0	0	0	3
EAST SOUTH CENTRAL									
Kentucky:									
Covington.....	58, 309	0	2	2	0	1	0	0	6
Louisville.....	305, 935	6	9	2	3	2	3	0	10
Tennessee:									
Memphis.....	174, 533	10	6	4	0	4	2	4	11
Nashville.....	136, 220	0	2	0	0	3	40	0	13
Alabama:									
Birmingham.....	205, 670	15	3	3	11	6	1	1	13
Mobile.....	65, 955	1	1	0	0	1	0	0	2
Montgomery.....	46, 481	9	1	2	1	0	0	23	0
WEST SOUTH CENTRAL									
Arkansas:									
Fort Smith.....	31, 643	2	1	0	0	0	1	0	3
Little Rock.....	74, 216	2	1	0	0	0	0	0	3
Louisiana:									
New Orleans.....	414, 493	2	14	6	15	3	0	0	26
Shreveport.....	57, 857	5	1	1	0	2	0	0	5
Oklahoma:									
Oklahoma City.....	(1)	1	2	0	0	0	1	0	2
Texas:									
Dallas.....	194, 460	11	7	5	7	2	2	0	16
Galveston.....	48, 375	0	1	6	0	0	0	0	4
Houston.....	164, 954	0	4	5	0	5	1	0	12
San Antonio.....	198, 060	0	2	5	0	0	0	0	9
MOUNTAIN									
Montana:									
Billings.....	17, 971	11	0	0	0	0	0	5	1
Great Falls.....	29, 883	15	1	0	0	0	3	50	1
Helena.....	12, 037	2	0	0	0	0	0	3	1
Missoula.....	12, 668	0	0	1	0	0	1	3	0
Idaho:									
Boise.....	23, 042	5	0	0	0	0	0	0	0
Colorado:									
Denver.....	280, 911	25	9	8	0	6	5	1	20
Pueblo.....	43, 787	4	3	1	0	1	0	0	4
Arizona:									
Phoenix.....	38, 669	1	1	0	0	0	1	0	4
Utah:									
Salt Lake City.....	130, 948	49	3	4	0	0	1	34	9
Nevada:									
Reno.....	12, 665	0	0	0	0	0	0	0	0
PACIFIC									
Washington:									
Seattle.....	(1)	63	6	4	0	0	4	90	3
Spokane.....	108, 897	17	4	1	0	0	0	0	15
Tacoma.....	104, 445	4	3	5	0	0	0	5	3
Oregon:									
Portland.....	282, 383	7	8	6	3	0	1	4	12
California:									
Los Angeles.....	(1)	69	42	12	18	0	9	12	16
Sacramento.....	72, 260	9	3	3	67	2	0	0	15
San Francisco.....	557, 530	30	26	5	56	11	6	4	13

1 No estimate made.

## City reports for week ended January 18, 1926—Continued

Division, State, and city	Scarlet fever		Smallpox			Tuber- cul- osis, deaths re- ported	Typhoid fever			Whoop- ing cough, cases re- ported	Deaths, all causes
	Cases, esti- mated expect- ancy	Cases re- ported	Cases, esti- mated expect- ancy	Cases re- ported	Deaths re- ported		Cases, esti- mated expect- ancy	Cases re- ported	Deaths re- ported		
NEW ENGLAND											
Maine:											
Portland	2	13	0	0	0	0	1	0	0	10	17
New Hampshire:											
Concord	0	0	0	0	0	1	0	0	0	0	15
Vermont:											
Barre	0	0	0	0	0	0	0	0	0	0	3
Massachusetts:											
Boston	50	94	0	0	0	23	0	0	0	73	251
Fall River	2	3	0	0	0	4	0	1	0	6	46
Springfield	9	8	0	0	0	2	0	0	0	7	34
Worcester	11	20	0	0	0	4	0	0	0	7	59
Rhode Island:											
Pawtucket	1	0	0	0	0	0	0	0	0	3	32
Providence	8	5	0	0	0	5	0	0	0	3	92
Connecticut:											
Bridgeport	6	10	0	0	0	2	0	0	0	6	29
Hartford	8	6	0	0	0	0	0	0	0	2	29
New Haven	10	2	0	0	0	0	0	0	0	5	40
MIDDLE ATLANTIC											
New York:											
Buffalo	22	24	1	5	0	12	1	6	2	35	152
New York	204	194	0	0	0	1105	11	13	2	64	1,557
Rochester	14	26	0	0	0	4	1	0	0	1	86
Syracuse	14	1	0	0	0	2	1	0	0	62	45
New Jersey:											
Camden	4	19	0	0	0	0	1	4	0	3	31
Newark	21	29	0	0	0	8	0	2	0	18	123
Trenton	4		0				1				
Pennsylvania:											
Philadelphia	68	94	1	0	0	26	4	7	2	30	616
Pittsburgh	32	81	0	0	0	14	2	0	0	22	194
Reading	2	5	0	0	0	1	0	0	0	7	41
EAST NORTH CEN- TRAL											
Ohio:											
Cincinnati	11	14	1	0	0	10	0	0	0	29	148
Cleveland	35	30	2	0	0	16	2	1	0	67	213
Columbus	10	20	1	5	0	3	0	1	0	12	64
Toledo	17	7	3	0	0	6	1	0	0	15	55
Indiana:											
Fort Wayne	4	8	1	0	0	2	0	1	1	0	27
Indianapolis	10	11	6	36	0	8	1	1	0	0	98
South Bend	4	3	1	11	0	1	1	0	0	2	18
Terre Haute	2	6	0	2	0	1	0	0	0	0	20
Illinois:											
Chicago	145	168	2	0	0	42	4	2	0	52	781
Peoria	6	7	0	0	0	1	0	0	0	2	16
Springfield	2	3	0	0	0	1	0	0	0	0	13
Michigan:											
Detroit	90	124	4	0	0	23	2	0	0	91	333
Flint	9	9	1	0	0	2	1	0	0	60	22
Grand Rapids	11	42	0	0	0	6	0	1	0	31	33
Wisconsin:											
Madison	3	3	0	0	0	0	0	0	0	3	4
Milwaukee	38	21	2	0	0	5	1	5	0	58	99
Racine	6	1	1	0	0	1	0	0	0	8	14
Superior	2	9	3	0	0	1	1	0	0	0	5
WEST NORTH CEN- TRAL											
Minnesota:											
Duluth	6	10	1	0	0	0	0	0	0	12	20
Minneapolis	42	59	16	0	0	3	1	1	0	1	122
St. Paul	24	58	10	1	0	5	0	0	0	15	61

1 Pulmonary tuberculosis only.

## City reports for week ended January 16, 1926—Continued

Division, State, and city	Scarlet fever		Smallpox			Tuber- culo- sis, deaths re- ported	Typhoid fever			Whoop- ing cough, cases re- ported	Deaths, all causes
	Cases, esti- mated expect- ancy	Cases re- ported	Cases, esti- mated expect- ancy	Cases re- ported	Deaths re- ported		Cases, esti- mated expect- ancy	Cases re- ported	Deaths re- ported		
WEST NORTH CEN- TRAL—continued											
Iowa:											
Davenport.....	2	4	1	0	—	—	0	0	—	1	—
Des Moines.....	8	6	2	1	—	—	0	0	—	0	—
Sioux City.....	3	2	0	10	—	—	0	0	—	0	—
Waterloo.....	2	1	0	2	—	—	0	0	—	2	—
Missouri:											
Kansas City.....	14	27	2	0	0	9	0	0	0	17	108
St. Joseph.....	3	1	0	0	0	2	0	0	0	0	34
St. Louis.....	38	99	2	0	0	10	2	1	0	7	242
North Dakota:											
Fargo.....	2	4	0	0	0	0	0	0	0	2	7
Grand Forks.....	1	0	0	0	—	—	0	0	—	0	—
South Dakota:											
Aberdeen.....	0	1	0	0	—	—	0	0	—	0	—
Sioux Falls.....	2	1	1	0	—	—	0	0	—	0	—
Nebraska:											
Lincoln.....	2	4	0	0	0	0	0	0	0	3	20
Omaha.....	5	8	5	13	0	2	0	0	0	2	57
Kansas:											
Topeka.....	2	4	0	0	0	1	0	0	0	1	14
Wichita.....	4	3	0	9	0	2	0	0	0	0	34
SOUTH ATLANTIC											
Delaware:											
Wilmington.....	3	10	0	0	0	2	1	0	0	3	28
Maryland:											
Baltimore.....	33	23	1	0	0	23	2	0	0	33	309
Cumberland.....	1	0	0	0	0	1	0	0	0	2	8
Frederick.....	0	0	0	0	0	0	0	0	0	0	3
District of Col.:											
Washington.....	22	28	1	0	0	11	2	1	1	3	194
Virginia:											
Lynchburg.....	0	2	0	0	0	0	0	0	0	4	4
Norfolk.....	1	5	0	0	0	4	1	0	0	5	—
Richmond.....	5	13	0	0	0	7	0	0	0	0	69
Roanoke.....	1	4	0	2	0	2	1	0	0	1	18
West Virginia:											
Charleston.....	1	0	0	0	0	1	0	0	0	2	12
Huntington.....	1	3	0	0	0	2	0	0	0	0	21
Wheeling.....	1	5	0	0	0	0	0	0	0	0	10
North Carolina:											
Raleigh.....	0	1	0	4	0	1	0	0	0	0	17
Wilmington.....	1	1	0	0	0	0	0	0	0	0	9
Winston-Salem.....	2	1	2	3	0	3	0	0	0	11	18
South Carolina:											
Charleston.....	1	1	0	0	0	4	0	0	0	0	33
Columbia.....	0	1	0	1	0	0	0	0	0	0	—
Greenville.....	0	0	0	1	0	0	0	0	0	1	4
Georgia:											
Atlanta.....	3	3	2	1	0	9	0	1	1	1	64
Brunswick.....	0	0	1	0	0	0	0	0	0	0	2
Savannah.....	0	0	0	0	0	1	1	2	0	0	35
Florida:											
Tampa.....	1	1	0	24	0	2	1	0	0	0	37
EAST SOUTH CEN- TRAL											
Kentucky:											
Covington.....	1	3	0	0	0	2	0	0	0	0	33
Louisville.....	5	6	0	0	0	5	0	0	0	0	106
Tennessee:											
Memphis.....	4	7	1	2	0	2	0	0	0	0	77
Nashville.....	3	4	0	1	0	4	0	3	2	4	47
Alabama:											
Birmingham.....	4	4	2	8	0	4	1	0	0	5	77
Mobile.....	1	1	0	0	0	1	1	0	0	0	23
Montgomery.....	0	2	1	0	0	0	0	0	0	0	—

## City reports for week ended January 16, 1926—Continued.

Division, State, and city	Scarlet fever		Smallpox			Tuber- culo- sis, deaths re- ported	Typhoid fever			Whoop- ing cough, cases re- ported	Deaths, all causes
	Cases, esti- mated expect- ancy	Cases re- ported	Cases, esti- mated expect- ancy	Cases re- ported	Deaths re- ported		Cases, esti- mated expect- ancy	Cases re- ported	Deaths re- ported		
WEST SOUTH CENTRAL											
Arkansas:											
Fort Smith.....	1	1	0	0			0	0		0	
Little Rock.....	2	0	0	0	0	3	0	0	0	0	
Louisiana:											
New Orleans.....	4	6	1	5	0	22	3	3	2	1	181
Shreveport.....	1	1	3	0	0	0	0	0	1	0	31
Oklahoma:											
Oklahoma City.....	2	4	1	0	0	1	1	0	0	1	19
Texas:											
Dallas.....	4	8	2	1	0	5	1	0	0	20	68
Galveston.....	0	2	0	3	0	1	0	0	1	0	23
Houston.....	2	1	0	25	0	5	0	0	0	0	60
San Antonio.....	1	2	0	0	0	13	0	0	0	0	60
MOUNTAIN											
Montana:											
Billings.....	2	4	0	0	0	0	0	0	0	0	8
Great Falls.....	1	6	2	0	0	0	0	0	0	1	4
Helena.....	0	1	0	0	0	0	0	0	0	0	6
Missoula.....	1	1	0	0	0	0	0	0	0	0	4
Idaho:											
Boise.....	2	0	1	2	0	0	0	0	0	0	3
Colorado:											
Denver.....	10	15	4	0	0	8	0	1	1	52	108
Pueblo.....	2	0	1	0	0	0	0	0	0	0	11
Arizona:											
Phoenix.....	0	2	0	1	0	3	0	0	0	0	11
Utah:											
Salt Lake City.....	3	7	4	0	0	0	0	0	0	16	27
Nevada:											
Reno.....	0	1	0	0	0	0	0	0	0	0	1
PACIFIC											
Washington:											
Seattle.....	10	35	3	2			0	0		4	
Spokane.....	4	16	5	1			0	0		6	
Tacoma.....	3	4	2	9	0	1	1	0	0	0	26
Oregon:											
Portland.....	0	11	8	4	0	0	0	0	0	1	75
California:											
Los Angeles.....	18	23	2	84	3	20	2	2	0	8	217
Sacramento.....	2	1	0	9	0	1	0	0	0	0	37
San Francisco.....	13	16	1	1	0	13	0	3	0	6	165

Division, State, and city	Cerebrospinal meningitis		Lethargic encephalitis		Pellagra		Poliomyelitis (infantile paralysis)			
	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases, estimated expectancy	Cases	Deaths	
<b>NEW ENGLAND</b>										
Massachusetts:										
Boston.....	4	1	0	0	1	0	1	0	0	0
Fall River.....	0	1	0	0	0	0	0	0	0	0
<b>MIDDLE ATLANTIC</b>										
New York:										
New York.....	1	1	6	5	0	0	1	0	0	0
Pennsylvania:										
Philadelphia.....	0	0	1	0	0	0	0	0	0	0



## City reports for week ended January 16, 1926—Continued

Division, State, and city	Cerebrospinal meningitis		Lethargic encephalitis		Pellagra		Poliomyelitis (infantile paralysis)		
	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases, estimated expectancy	Cases	Deaths
<b>EAST NORTH CENTRAL</b>									
Ohio:									
Columbus.....	0	0	0	1	0	0	0	0	0
Illinois:									
Chicago.....	0	0	1	0	0	0	1	0	0
Michigan:									
Detroit.....	0	1	2	2	0	0	0	0	0
Wisconsin:									
Milwaukee.....	3	1	0	0	0	0	0	0	0
<b>WEST NORTH CENTRAL</b>									
Minnesota:									
Minneapolis.....	0	0	0	0	0	0	0	1	1
St. Paul.....	1	0	0	0	0	0	0	0	0
Missouri:									
St. Louis.....	1	0	0	0	0	0	0	0	0
<b>SOUTH ATLANTIC</b>									
Maryland:									
Baltimore <sup>1</sup> .....	1	1	0	0	0	0	0	0	0
West Virginia:									
Huntington.....	0	1	0	0	0	0	0	0	0
<b>EAST SOUTH CENTRAL</b>									
Alabama:									
Birmingham.....	0	0	0	0	2	0	0	1	0
<b>WEST SOUTH CENTRAL</b>									
Louisiana:									
Shreveport.....	0	0	0	0	0	2	0	0	0
Texas:									
Dallas.....	0	0	0	0	0	1	0	0	0
<b>MOUNTAIN</b>									
Colorado:									
Denver.....	0	0	0	0	0	0	0	1	1
Utah:									
Salt Lake City.....	1	1	0	0	0	0	0	0	0
<b>PACIFIC</b>									
Washington:									
Spokane.....	2	0	0	0	0	0	0	0	0
California:									
Sacramento.....	2	0	0	0	0	0	0	0	0
San Francisco.....	1	0	1	1	0	0	0	0	0

<sup>1</sup> Typhus fever, 1 case at Baltimore, Md.

The following table gives the rates per 100,000 population for 103 cities for the three-week period ended January 16, 1926, compared with those for a like period ended January 17, 1925. The population figures used in computing the rates are approximate estimates as of July 1, 1925 and 1926, respectively, authoritative figures for many of the cities not being available. The 103 cities reporting cases had an estimated aggregate population of nearly 30,000,000 in 1925 and nearly 30,500,000 in 1926. The 96 cities reporting deaths had more than 29,250,000 estimated population in 1925 and more than

29,750,000 in 1926. The number of cities included in each group and the estimated aggregate populations are shown in a separate table below.

*Summary of weekly reports from cities, December 27, 1925, to January 16, 1926—Annual rates per 100,000 population—Compared with rates for the corresponding period of 1924-25*<sup>1</sup>

## DIPHTHERIA CASE RATES

	Week ended—					
	Jan. 3, 1925	Jan. 2, 1926	Jan. 10, 1925	Jan. 9, 1926	Jan. 17, 1925	Jan. 16, 1926
103 cities.....	149	129	145	<sup>2</sup> 167	167	<sup>3</sup> 146
New England.....	249	139	247	139	173	144
Middle Atlantic.....	140	124	130	<sup>1</sup> 179	187	<sup>3</sup> 153
East North Central.....	141	129	122	151	132	135
West North Central.....	171	154	139	233	247	253
South Atlantic.....	138	126	161	178	115	141
East South Central.....	84	109	110	52	84	67
West South Central.....	141	146	137	189	185	120
Mountain.....	102	109	231	182	143	127
Pacific.....	160	124	185	97	196	81

## MEASLES CASE RATES

103 cities.....	150	601	207	<sup>2</sup> 1,092	188	<sup>3</sup> 977
New England.....	367	2,373	381	3,094	424	2,867
Middle Atlantic.....	120	550	168	<sup>1</sup> 516	187	<sup>3</sup> 855
East North Central.....	277	736	391	1,761	327	1,302
West North Central.....	10	49	18	148	12	127
South Atlantic.....	50	460	79	1,280	42	1,356
East South Central.....	16	104	26	52	42	239
West South Central.....	9	0	4	0	22	22
Mountain.....	111	82	126	55	259	91
Pacific.....	75	40	185	65	152	51

## SCARLET FEVER CASE RATES

103 cities.....	284	221	307	<sup>2</sup> 292	344	<sup>3</sup> 284
New England.....	537	300	637	295	542	381
Middle Atlantic.....	285	166	323	<sup>1</sup> 263	292	<sup>3</sup> 238
East North Central.....	227	243	166	330	350	321
West North Central.....	549	493	733	580	731	548
South Atlantic.....	192	137	143	158	246	186
East South Central.....	153	99	210	119	163	146
West South Central.....	79	120	141	112	110	99
Mountain.....	157	246	370	237	518	319
Pacific.....	155	265	180	243	174	267

## SMALLPOX CASE RATES

103 cities.....	41	23	55	<sup>2</sup> 41	56	<sup>3</sup> 47
New England.....	0	0	0	0	0	0
Middle Atlantic.....	3	1	3	<sup>1</sup> 0	10	<sup>3</sup> 3
East North Central.....	25	22	38	48	37	37
West North Central.....	125	18	213	65	187	51
South Atlantic.....	36	24	29	43	58	68
East South Central.....	341	73	362	47	200	57
West South Central.....	31	22	62	52	31	146
Mountain.....	46	36	28	36	58	18
Pacific.....	108	148	141	111	202	284

<sup>1</sup> The figures given in this table are rates per 100,000 population, annual basis, and not the number of cases reported. Populations used are estimated as of July 1, 1925 and 1926, respectively.

<sup>2</sup> New York, N. Y., not included.

<sup>3</sup> Trenton, N. J., not included.

Summary of weekly reports from cities, December 27, 1925, to January 16, 1926—  
Annual rates per 100,000 population—Compared with rates for the corresponding  
period of 1924-25—Continued

## TYPHOID FEVER CASE RATES

	Week ended—					
	Jan. 3, 1925	Jan. 2, 1926	Jan. 10, 1925	Jan. 9, 1926	Jan. 17, 1925	Jan. 16, 1926
103 cities.....	36	10	32	* 13	20	* 11
New England.....	24	7	14	31	24	2
Middle Atlantic.....	58	7	49	* 12	21	* 16
East North Central.....	26	6	13	11	22	8
West North Central.....	4	6	6	2	10	4
South Atlantic.....	38	11	52	9	19	8
East South Central.....	37	31	47	16	16	16
West South Central.....	35	47	66	22	66	13
Mountain.....	0	9	9	9	0	9
Pacific.....	11	8	25	11	6	13

## INFLUENZA DEATH RATES

96 cities.....	18	15	20	* 21	21	* 23
New England.....	2	12	17	9	26	14
Middle Atlantic.....	21	10	20	* 18	18	* 16
East North Central.....	9	8	15	12	14	11
West North Central.....	8	15	13	8	2	19
South Atlantic.....	25	19	33	15	42	23
East South Central.....	58	31	42	83	42	88
West South Central.....	48	43	59	47	82	80
Mountain.....	37	27	18	46	28	64
Pacific.....	11	39	18	57	11	46

## PNEUMONIA DEATH RATES

96 cities.....	195	184	185	* 220	206	* 211
New England.....	168	210	117	246	151	208
Middle Atlantic.....	225	186	227	* 240	259	* 235
East North Central.....	155	142	143	176	143	153
West North Central.....	91	117	87	140	104	126
South Atlantic.....	232	261	232	289	271	276
East South Central.....	278	259	268	332	173	285
West South Central.....	324	312	247	335	426	354
Mountain.....	222	264	222	127	240	328
Pacific.....	167	135	164	220	145	167

\* New York, N. Y., not included.

\* Trenton, N. J., not included.

Number of cities included in summary of weekly reports, and aggregate population of  
cities in each group, approximated as of July 1, 1925 and 1926, respectively

Group of cities	Number of cities reporting cases	Number of cities reporting deaths	Aggregate population of cities reporting cases		Aggregate population of cities reporting deaths	
			1925	1926	1925	1926
Total.....	103	96	29,944,996	30,473,129	29,251,658	29,764,201
New England.....	12	12	2,176,124	2,206,124	2,176,124	2,206,124
Middle Atlantic.....	10	10	10,346,970	10,476,970	10,346,970	10,476,970
East North Central.....	18	16	7,481,656	7,655,436	7,481,656	7,655,436
West North Central.....	14	11	2,594,962	2,634,662	2,461,380	2,499,036
South Atlantic.....	21	21	2,716,070	2,776,070	2,716,070	2,776,070
East South Central.....	7	7	993,103	1,004,953	993,103	1,004,953
West South Central.....	8	6	1,184,067	1,212,067	1,078,198	1,103,695
Mountain.....	9	9	563,912	572,773	563,912	572,773
Pacific.....	6	4	1,888,142	1,934,064	1,434,245	1,469,144

## FOREIGN AND INSULAR

### THE FAR EAST

*Report for week ended January 2, 1926.*—The following report for the week ended January 2, 1926, was transmitted by the Far Eastern Bureau of the health section of the League of Nations' secretariat, located at Singapore, to the headquarters at Geneva:

Port	Plague		Cholera		Small-pox		Port	Plague		Cholera		Small-pox	
	Cases	Deaths	Cases	Deaths	Cases	Deaths		Cases	Deaths	Cases	Deaths	Cases	Deaths
Calcutta.....		0		9	30	13	Kobe.....	0	0	0	0	0	0
Bombay.....		0		0	11	4	Osaka.....	0	0	0	0	0	0
Madras.....		0		13	3	1	Keelung.....	0	0	0	0	0	0
Rangoon.....		0		0	1	1	Fusan.....	0	0	0	0	0	0
Karachi.....		0		0	7	2	Dairen.....	0	0	0	0	0	0
Negapatam.....		0		12	0	0	Adelaide.....	0	0	0	0	1	0
Colombo.....	0	0	0	0	0	0	Brisbane.....	0	0	0	0	0	0
Basra.....	0	0	0	0	16	12	Fremantle.....	0	0	0	0	0	0
Singapore.....	0	0	0	0	0	0	Melbourne.....	0	0	0	0	0	0
Port Swettenham.....	0	0	0	0	0	0	Sydney.....	0	0	0	0	0	0
Penang.....	0	0	0	0	0	0	Rockhampton.....	0	0	0	0	0	0
Batavia.....	0	0	0	0	0	0	Townsville.....	0	0	0	0	0	0
Soerabaya.....	0	0	0	0	4	3	Port Darwin.....	0	0	0	0	0	0
Samarang.....	0	0	0	0	0	0	Broome.....	0	0	0	0	0	0
Belawan Deli.....	0	0	0	0	0	0	Pert Moresby.....	0	0	0	0	0	0
Padaang (Sumatra).....	0	0	0	0	0	0	Honolulu.....	0	0	0	0	0	0
Sabang (Rhio).....	0	0	0	0	0	0	Suez.....	0	0	0	0	0	0
Macassar.....	0	0	0	0	0	0	Alexandria.....	0	0	0	0	0	0
Sandakan (North Borneo).....	0	0	0	0	0	0	Port Said.....	0	0	0	0	0	0
Manila.....	0	0	0	0	0	0	Mombasa (Kenya).....	0	0	0	0	0	0
Zamboanga.....	0	0	0	0	0	0	Zanzibar.....	0	0	0	0	0	0
Bangkok.....	0	0	23	14	3	3	Masowah.....	0	0	0	0	0	0
Saigon and Cholon.....	0	0	0	0	0	0	Djibuti.....	0	0	0	0	0	0
Hongkong.....	0	0	0	0	0	0	Lourenco Marques.....	0	0	0	0	0	0
Shanghai.....	0	0	0	0		5	Durban.....	0	0	0	0	0	0
Amoy.....	0	0	0	0	0	0	East London.....	0	0	0	0	0	0
Nagasaki.....	0	0	0	0	0	0	Port Elizabeth.....	0	0	0	0	0	0
Yokohama.....	0	0	0	0	0	0	Cape Town.....	0	0	0	0	0	0
Simonoseki.....	0	0	0	0	0	0	Port Louis (Mauritius).....	0	0	0	0	0	0
Moji.....	0	0	0	0	0	0	Seychelles.....	0	0	0	0	0	0

### ALGERIA

*Smallpox—Increased prevalence at Algiers.*—An increase in the prevalence of smallpox at Algiers, Algeria, has been noted, with 46 cases reported from December 1 to 10 and 51 cases from December 11 to 20, 1925, as compared with 12 cases reported during the last decade in the month of November, 1925. Under date of January 7, 1926, vaccination was stated to have been ordered for all persons in Algiers irrespective of age, and including temporary residents living in the vicinity of Algiers and Tizi Ouzou.

## CANADA

*Communicable diseases—January 3 to 16, 1926.*—The following table shows the numbers of cases of certain communicable diseases in seven Provinces of Canada during the two-week period from January 3 to 16, 1926. The information was supplied by the Canadian Ministry of Health.

	Nova Scotia	New Brunswick	Quebec	Ontario	Mani- toba	Sas- katch- ewan	Alberta	Total
Cerebrospinal fever:								
Week ended Jan. 9, 1926.....				1				1
Week ended Jan. 16, 1926.....			1	3				4
Lethargic encephalitis:								
Week ended Jan. 9, 1926.....								
Week ended Jan. 16, 1926.....					1			1
Poliomyelitis:								
Week ended Jan. 9, 1926.....				2	1			3
Week ended Jan. 16, 1926.....								
Smallpox:								
Week ended Jan. 9, 1926.....				21	14	1		36
Week ended Jan. 16, 1926.....				14		4	2	20
Typhoid fever:								
Week ended Jan. 9, 1926.....		1	8	13	2	17	2	43
Week ended Jan. 16, 1926.....		2	11	9	3	41		66

## CANARY ISLANDS

*Plague—Las Palmas—Vicinity of Santa Cruz de Tenerife.*—Plague has been reported in the Canary Islands as follows: December 24, 1925—La Laguna, three cases with two deaths (vicinity of Santa Cruz de Tenerife); Las Palmas, one case.

## ECUADOR

*Plague—Guayaquil—December 16–31, 1925.*—During the two week period ended December 31, 1925, 16 cases of plague with four deaths were reported at Guayaquil, Ecuador.

*Plague-infected rats.*—During the period under report, 12,794 rats were reported taken and 67 rats found plague infected.

## GREAT BRITAIN (SCOTLAND)

*Measles—Glasgow.*<sup>1</sup>—During the week ended January 2, 1926, 246 cases of measles with 17 deaths were reported at Glasgow, Scotland.

## MEXICO

*Epidemic smallpox—San Luis Potosi.*—Smallpox has been reported present in epidemic form at San Luis Potosi, Mexico, with 26 deaths from the disease from December 20, 1925, to January 16, 1926. The number of cases has not been reported.

<sup>1</sup>Public Health Reports, Jan. 22, 1926, p. 154.

## PERU

*Plague—Huacho.*—Information has been received under date of January 26, 1926, of the occurrence of 15 cases of plague at Huacho, a port situated about 60 miles north of Callao, Peru. Huacho is an occasional port of call for vessels bound for the Canal Zone and a discharging port for some vessels southward bound. Plague was reported present at Huacho in July, 1925, with three cases and one death.

## UNION OF SOUTH AFRICA

*Plague—Cape Province—Orange Free State.*—Plague has been reported in the Union of South Africa as follows: Week ended December 12, 1925—Cape Province, in Middleburg district, one case, European. Orange Free State, one fatal case occurring on a farm in Bothaville district, in a native.

## VIRGIN ISLANDS

*Communicable diseases—December, 1925.*—During the month of December, 1925, communicable diseases were reported in the Virgin Islands of the United States as follows:

Island and disease	Cases	Remarks
St. Thomas and St. John:		
Chancroid.....	1	
Dengue.....	1	
Filariasis.....	1	From St. Croix; Bancrofti.
Gonorrhea.....	4	
Pellagra.....	1	
Syphilis.....	7	Primary, 2; secondary, 3; of aorta, 1; of eye, 1
St. Croix:		
Chancroid.....	2	
Filariasis.....	2	Bancrofti.
Gonorrhea.....	1	
Syphilis.....	2	Secondary.
Tuberculosis.....	1	Chronic, pulmonary.

## CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER

The reports contained in the following tables must not be considered as complete or final as regard either the lists of countries included or the figures for the particular countries for which reports are given

Reports Received During Week Ended February 5, 1926 <sup>1</sup>

## CHOLERA

Place	Date	Cases	Deaths	Remarks
India				Nov. 15-21, 1925: Cases, 2,188; deaths, 1,323.
Calcutta.....	Dec. 6-12.....	23	30	
Madras.....	Dec. 13-26.....	69	26	
Japan.....	Sept. 20-Oct. 17.....	238		
Philippine Islands:				
Manila.....	Dec. 14-26.....	5	2	
Provinces—				
Bulacan.....	Nov. 29-Dec. 12.....	71	35	
Pampanga.....	do.....	28	26	
Rizal.....	Nov. 8-21.....	5		
Russia.....	July-August.....	4		
Siam:				
Bangkok.....	Dec. 6-12.....	39	26	

<sup>1</sup> From medical officers of the Public Health Service, American consuls, and other sources.

# CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued

## Reports Received During Week Ended February 5, 1926—Continued

### PLAGUE

Place	Date	Cases	Deaths	Remarks
Canary Islands: Santa Cruz de Teneriffe	Dec. 21-27	1		Officially reported Dec. 24, 1925.
China: Nanking	Dec. 13-26			Present.
Do.	Dec. 27-Jan. 2			Do.
Ecuador: Guayaquil	Dec. 16-31	16	4	Rats taken, 12,794; plague-infected rats found, 67.
India: Bombay	Dec. 6-12	1	1	Nov. 15-21, 1925: Cases, 1,164; deaths, 69d.
Calcutta	Dec. 6-12	1	1	
Karachi	Dec. 13-19	1	1	
Rangoon	Dec. 6-12	1	1	
Java: Djakakarta	Oct. 20			Epidemic. One locality.
Kediri	Dec. 7			Do.
Rembang	Oct. 20			Do.
Soerabaya	Nov. 22-28	6	6	
Mauritius	Oct. 18-Nov. 14	4	4	
Nigeria	August-September	349	267	
Peru: Huacho		15		Port. Situated 60 miles north of Callao. Reported under date of Jan. 26, 1926.
Russia	July-August	139		
Senegal	October	23	13	
Siam	Sept. 6-Oct. 3	27	20	
Union of South Africa: Cape Province— Middleburg District	Dec. 6-12	1		Dec. 6-12, 1925: Cases, 2; deaths, 1. One case occurred in European.
Orange Free State— Bothaville District	do.	1	1	Native. On farm.

### SMALLPOX

Algeria: Algiers	Dec. 11-20	51		
Australia: Queensland— Brisbane	Dec. 9-15	1		
British East Africa: Kenya— Mombasa	Dec. 6-12	4	2	From Tivi, 9 miles distant on mainland.
British South Africa: Southern Rhodesia	Dec. 4-10	1		
Canada: Alberta	Jan. 10-16	2		Jan. 3-16, 1926: Cases, 56.
British Columbia— Vancouver	Jan. 4-10	1		
Manitoba	Jan. 3-9	14		
Winnipeg	Jan. 17-23	1		
Ontario	Jan. 3-16	35		
Toronto	Jan. 10-16	18		
Saskatchewan	Jan. 3-16	5		
China: Amoy	Dec. 6-19			Present.
Antung	Dec. 14-20	1		
Chungking	Dec. 20-26			Do.
Hankow	do.	1		
Nanking	Dec. 6-26			Do.
Do.	Dec. 27-Jan. 2			Do.
France: Gold Coast	October	66		
Great Britain: England and Wales	Dec. 27-Jan. 2	263		
Hull	Dec. 27-Jan. 9	14		
Newcastle-on-Tyne	Dec. 27-Jan. 2	1		
Nottingham	Dec. 13-28	5		

# CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER.—Continued

## Reports Received During Week Ended February 5, 1926—Continued

### SMALLPOX—Continued

Place	Date	Cases	Deaths	Remarks
India.....				Nov. 15-21, 1925: Cases, 1,842; deaths, 348.
Bombay.....	Nov. 29-Dec. 12.....	7	7	
Calcutta.....	Dec. 6-12.....	8	6	
Karachi.....	Dec. 13-19.....	3		
Madras.....	Dec. 13-26.....	5	1	
Rangoon.....	Dec. 6-12.....	2	1	
Iraq.....	Sept. 20-Oct. 17.....	40	16	
Italy.....	Oct. 4-31.....	12		
Java:				
Soerabaya.....	Nov. 22-23.....	51	4	
Mexico.....				September, 1925: Deaths, 252.
Aguascalientes.....	Jan. 3-16.....		3	
Guadalajara.....	Jan. 12-18.....		1	
Mexico City.....	Jan. 3-9.....	1		Including municipalities in Federal District.
San Luis Potosi.....	Dec. 20-Jan. 16.....		16	
Torreón.....	Dec. 1-31.....		36	
Nigeria.....	August-September.....	103	1	
Poland.....				Nov. 1-7, 1925: Cases, 8.
Portugal:				
Oporto.....	Dec. 27-Jan. 2.....	1		
Russia.....	May-June.....	2,333		Later than previously published reports.
Do.....	July-August.....	760		
Spain:				Year 1925: Deaths, 18.
Madrid.....				
Malaga.....	Dec. 27-Jan. 2.....		1	
Valencia.....	do.....	1		
Switzerland.....	Oct. 25-Nov. 21.....	26		
Tunisia:				
Tunis.....	Dec. 21-31.....		1	
Do.....	Jan. 1-10.....	1		
Union of South Africa:				
Transvaal.....				
Pretoria District.....	Dec. 6-12.....			Outbreaks. In native compound.

### TYPHUS FEVER

Algeria:				
Algiers.....	Dec. 11-20.....	1		
Bulgaria.....	September-October.....	26	2	
China:				
Antung.....	Dec. 21-27.....	1		
Czechoslovakia.....	October.....	8		
France.....	July-October.....	4		
Germany.....	Oct. 25-31.....	1		
Lithuania.....	October.....	1		
Mexico.....				September, 1925: Deaths, 25.
Mexico City.....	Jan. 3-9.....	3		Including municipalities in Federal district.
Morocco.....	August.....	3		
Poland.....				Nov. 1-14, 1925: Cases, 88; deaths, 11.
Rumania.....	July.....	74	9	
Russia.....	May-June.....	10,680		Later than previously published reports.
Do.....	July-August.....	3,136		
Union of South Africa.....				Dec. 6-12, 1925: Cases, deaths, 1.
Cape Province.....				European. On farm.
Middleburg District.....	Dec. 6-12.....	1		
Orange Free State.....	do.....			Outbreaks.
Bethulia District.....	do.....	1		Native. On farm.
Bothaville District.....	do.....	1		

### YELLOW FEVER

Gold Coast.....	September.....	1	1	
Nigeria.....	August-September.....	2	1	



# **CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued**

**Reports Received from December 26, 1925, to January 29, 1926<sup>1</sup>**

## **CHOLERA**

Place	Date	Cases	Deaths	Remarks
<b>India</b>				Oct. 18–Nov. 14, 1925: Cases, 6,544; deaths, 3,790.
Calcutta	Nov. 1–28	101	89	
Madras	Nov. 15–Dec. 12	77	31	
Rangoon	Nov. 8–Dec. 5	4	4	
<b>Indo-China</b>				September, 1925: Cases, 9; deaths, 5. September, 1924: Cases, 7; deaths, 4. (European cases, 2)
Province—				September, 1924: None
Annam	Sept. 1–30	2	2	September, 1924: None
Cochin China	do	5	3	September, 1924: 1 case; 1 death.
Tonkin	do	2		September, 1924: None.
<b>Japan</b>	Aug. 30–Sept. 19	121		
<b>Philippine Islands:</b>				
Manila	Nov. 9–Dec. 5	8	6	
Provinces—				
Bataan	Nov. 30–Dec. 13	10	8	
Bulacan	Oct. 18–Nov. 7	92	64	
Do	Nov. 23–Dec. 13	108	34	
Laguna	do	16	13	
Nueva Ecija	do	6	2	
Pampanga	Nov. 1–7	1	1	
Do	Nov. 23–Dec. 13	42	30	
Rizal	Sept. 27–Oct. 24	70	21	
Romblon	Dec. 7–13	23	12	
<b>Russia</b>	May–June	7		
<b>Siam:</b>				
Bangkok	Oct. 4–Nov. 14	108	68	
Do	Nov. 22–Dec. 5	122	62	
<b>On vessel:</b>				
Steamship	Oct. 3	9		Arrived at Bangkok, Siam; 9 cases in coolie passengers.

## **PLAGUE**

<b>Brazil:</b>				
Bahia	Nov. 8–14	2		
Santos	Dec. 8–21		2	
<b>British East Africa:</b>				
Kenya—				
Kisumu	Nov. 22–Dec. 5	1	2	
Uganda Protectorate	September, 1925	108	85	
<b>Canary Islands:</b>				
Santa Cruz de Tenerife	Dec. 18	2		
<b>Ceylon:</b>				
Colombo	Nov. 15–28	3	3	
Do	Nov. 29–Dec. 5			One plague rodent.
<b>China:</b>				
Nanking	Nov. 15–Dec. 5			Prevalent.
<b>Ecuador:</b>				
Guayaquil	Nov. 1–Dec. 15	15	8	Rats taken, Nov. 1–Dec. 15, 1925: 26,576; rats found infected, 214. Jan. 1–Dec. 9, 1925: Cases, 138. Corresponding period, 1924: Cases, 365.
<b>Egypt:</b>				
Bani Suef	Nov. 18, 1925	1	1	
Fayoum Province	Dec. 3–9	1	1	
<b>Greece:</b>				
Athens	Nov. 1–30	18	4	Including Piræus.
Patras	Nov. 13–Dec. 12	4	1	
<b>India</b>				Oct. 18–Nov. 7, 1925: Cases, 4,776; deaths, 3,247.
Karachi	Nov. 1–14	3	2	
Madras	Oct. 25–Nov. 7	75	41	
Do	Nov. 15–21	35	22	
Rangoon	Oct. 25–Dec. 5	18	11	
<b>Indo-China</b>				September, 1925: Cases, 17; deaths, 16. September, 1924: Cases, fatal, 12.
Province—				September, 1924: Cases, 9; deaths, 9.
Cambodia	Sept. 1–30	11	11	
Cochin China	do	6	5	September, 1924: 1 case, 1 death.

<sup>1</sup> From medical officers of the Public Health Service, American consuls, and other sources.

# **CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued**

**Reports Received from December 26, 1925, to January 29, 1926—Continued**

## **PLAGUE—Continued**

Place	Date	Cases	Deaths	Remarks
Java:				
Batavia.....	Oct. 24-Nov. 6.....	94	89	Province.
Do.....	Nov. 14-Dec. 4.....	169	159	
Cheribon.....	Sept. 27-Oct. 17.....	-----	166	Epidemic in one locality.
Djakakarta.....	Nov. 9.....	-----	-----	
Pekalongan.....	Sept. 27-Oct. 17.....	-----	42	
Soerabaya.....	Oct. 11-Nov. 21.....	36	30	
Tegal.....	Sept. 27-Oct. 17.....	6	6	
Madagascar:				
Province—				
Itasy.....	Sept. 16-Oct. 31.....	20	20	
Moramanga.....	do.....	17	17	
Tananarive.....	do.....	174	159	
Town—				
Fort Dauphin.....	Sept. 16-Oct. 15.....	5	2	
Tamatave (port).....	Sept. 16-30.....	3	2	
Do.....	Oct. 16-31.....	4	4	
Tananarive.....	Sept. 16-30.....	2	2	
Mauritius Island.....	Sept. 20-Oct. 17.....	5	5	
Russia.....	May-June.....	67	-----	
Senegal.....	September, 1925.....	22	12	
Siam.....	Aug. 23-Sept. 5.....	23	20	
Bangkok.....	Nov. 15-28.....	3	3	
Straits Settlements:				
Singapore.....	Nov. 1-21.....	5	5	
Syria:				
Beirut.....	Nov. 11-20.....	1	-----	
Union of South Africa:				
Cape Province—				
Steynsburg district.....	Nov. 15-21.....	1	-----	Native. On farm.
Orange Free State—				
Boshof district.....	Nov. 29-Dec. 5.....	1	1	In native.

## **SMALLPOX**

Algeria:				
Algiers.....	Nov. 21-Dec. 10.....	58	-----	
Arabia:				
Aden.....	Nov. 29-Dec. 5.....	1	-----	Imported.
Argentina:				
Rosario.....	October, 1925.....	1	-----	
Brazil:				
Rio de Janeiro.....	Nov. 1-28.....	134	72	
British East Africa:				
Kenya—				
Mombasa.....	Nov. 15-Dec. 5.....	10	3	
Uganda Protectorate.....	Sept. 1-30.....	7	4	
British South Africa:				
Southern Rhodesia.....	Nov. 13-19.....	1	-----	Native.
Canada.....				Sept. 13-Jan. 2: In seven provinces, 186 cases.
Alberta—				
Calgary.....	Dec. 13-19.....	1	-----	From Drumbeller, vicinity of Calgary.
Manitoba—				
Winnipeg.....	do.....	2	-----	
Do.....	Jan. 3-9.....	6	-----	
New Brunswick—				
Northumberland.....	Dec. 6-13.....	1	-----	
Ontario.....				December, 1925: Cases, 32; deaths, 1. Occurring in 15 localities.
Ottawa.....	Dec. 6-12.....	2	-----	
Do.....	Jan. 3-9.....	1	-----	
Toronto.....	Dec. 27-Jan. 2.....	1	-----	
Do.....	Jan. 3-9.....	2	-----	
Saskatchewan—				
Moose Jaw.....	do.....	2	-----	
Ceylon:				
Colombo.....	Dec. 6-12.....	1	-----	Port case.
China:				
Amoy.....	Oct. 25-Dec. 5.....	-----	1	
Antung.....	Dec. 7-13.....	1	-----	
Chungking.....	Nov. 15-Dec. 5.....	-----	-----	Present.
Foochow.....	Nov. 1-21.....	-----	-----	Do.
Hankow.....	Nov. 14-21.....	3	-----	
Hongkong.....	Nov. 22-28.....	3	-----	

# CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued

Reports Received from December 26, 1925, to January 29, 1926—Continued

## SMALLPOX—Continued

Place	Date	Cases	Deaths	Remarks
China—Continued				
Manchuria—				
An-shan	Dec. 6-12	1	1	
Dairen	Oct. 19-Dec. 6	40	10	
Mukden	Oct. 24-Nov. 15	1		
Tieh-lung	do	2		
Nanking	Nov. 21-Dec. 5			Present.
Shanghai	Oct. 25-Dec. 19	23	25	
Swatow	Nov. 22-Dec. 5			Do.
Tientsin	Nov. 1-7	1		
Egypt:				
Alexandria	Dec. 3-9	1	1	
France				September, 1925: Cases, 25.
Great Britain:				
England and Wales	Nov. 15-Dec. 26	790		
Hull	Nov. 29-Dec. 26	25		
Newcastle-on-Tyne	do	6		
Sheffield	Nov. 22-Dec. 12	7		
Greece				Oct. 1-31, 1925: Cases, 16.
Athens	Nov. 1-30	17	1	
India				Oct. 18-Nov. 14, 1925: Cases, 5,093; deaths, 1,136.
Bombay	Nov. 8-28	12	7	
Calcutta	Nov. 29-Dec. 5	21	12	
Karachi	Nov. 1-21	23		
Do	Nov. 29-Dec. 5	4	2	
Madras	Nov. 15-Dec. 12	13	4	
Rangoon	Oct. 25-Nov. 28	3		
Indo-China				September, 1925: Cases, 122; deaths, 33. September, 1924: Cases, 78; deaths, 22.
Province—				
Annam	Sept. 1-30	47	9	September, 1924: Cases, 8; deaths, 2.
Cambodia	do	29	8	September, 1924: Cases, 16; deaths, 1.
Cochin China	do	28	16	September, 1924: Cases, 43; deaths, 19.
Tonkin	do	18		September, 1924: Cases, 11.
Iraq				Sept. 6-19, 1925: Cases, 41; deaths, 24.
Bagdad	Nov. 1-14	4	4	
Do	Nov. 22-Dec. 5	9	9	
Italy				Aug. 2-Sept. 30, 1925: Cases, 26.
Rome	Oct. 12-25	1		
Jamaica				Nov. 27-Dec. 26, 1925: Cases, 52.
Kingston	Nov. 27-Dec. 26	43		Reported as alastrim.
Japan:				
Taiwan	Nov. 11-Dec. 10	3		
Yokohama	Dec. 14-20	1		
Java:				
Batavia	Oct. 24-30	1		
Do	Nov. 14-27	5		Province and city.
Kraksaan	Oct. 11-17	11		
Malang	do	2		
North Bantam	Oct. 4-17	4		
Probolingo	Oct. 11-17	1		
Soerabaya	Oct. 11-Nov. 21	343	50	
South Bantam	do	1		
Tegal	Oct. 4-10	9	1	
Malta	November, 1925	14		
Mexico				July-August, 1925: Deaths, 905.
Aguascalientes	Dec. 13-Jan. 2	4	3	
Durango	Dec. 1-31		1	
Guadalajara	Dec. 29-Jan. 4		3	
Mexico City	Nov. 28-Dec. 5	1		
Torreon	Nov. 1-30		15	
Persia:				
Telheran	July 23-Aug. 23		68	
Peru:				
Arequipa	Oct. 1-31		1	
Portugal:				
Lisbon	Oct. 4-31	124		
Do	Nov. 16-Dec. 6		31	
Do	Nov. 14-Dec. 19	179		
Oporto	Nov. 22-Dec. 19	2	3	
Russia				May-June, 1925: Cases, 1,336.

# **CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued**

**Reports Received from December 26, 1925, to January 29, 1926—Continued**

## **SMALLPOX—Continued**

Place	Date	Cases	Deaths	Remarks
Siam.....				July 12-Sept. 5, 1925: Cases, 21; deaths, 6.
Spain:				
Malaga.....	Nov. 29-Dec. 5.....		2	
Valencia.....	Dec. 20-26.....	1		
Switzerland.....				June 28-Oct. 24, 1925: Cases, 36.
Lucerne.....	Oct. 1-Nov. 30.....	8		
Tunisia:				
Tunis.....	Nov. 21-30.....	2		
Do.....	Dec. 11-20.....	10		

## **TYPHUS FEVER**

Algeria:				
Algiers.....	October, November.	3		
Argentina:				
Rosario.....	Oct. 1-31.....	1		
Chile:				
Valparaiso.....	Nov. 29-Dec. 5.....		1	
China:				
Antung.....	Nov. 29-Dec. 6.....	4	1	
Egypt:				
Port Said.....	Nov. 19-25.....	1		
Finland.....				October, 1925: One case.
Greece:				
Athens.....	Nov. 1-30.....	11	2	
Latvia.....	October, 1925.....	2		
Lithuania.....				September, 1925: Cases, 8; deaths, 1.
Mexico.....				July-August, 1925; deaths, 65.
Aguascalientes.....	Dec. 14-19.....	1		
Durango.....	Dec. 1-31.....		1	
Guadalajara.....	Dec. 8-Jan. 4.....		3	
Mexico City.....	Nov. 22-Jan. 2.....	162		Including municipalities in Federal district.
Tampico.....	Dec. 21-Jan. 10.....	1	1	
Torreon.....	November, 1925.....		1	
Palestine:				
Jaffa.....	Dec. 1-7.....	1		
Nazareth.....	Nov. 3-9.....	1		
Safad.....	Nov. 24-30.....	1		
Tel-Aviv.....	do.....	1		
Peru:				
Arequipa.....	October, 1925.....		2	
Poland.....	Oct. 11-31.....	54	5	
Rumania.....				July, 1925: Cases, 74; deaths, 9.
Russia.....				May-June, 1925: Cases, 7,609.
Union of South Africa.....				October 1-31, 1925: Cases, 88; deaths, 7 (colored); cases, 7 (European population).
Cape Province.....	Oct. 1-31.....	63	5	Colored.
Do.....	Nov. 8-14.....			Outbreaks in two districts.
Natal.....	Oct. 1-Dec. 5.....	1		
Orange Free State.....	Nov. 29-Dec. 5.....	23	1	
Transvaal.....	Oct. 1-31.....	1	1	





TREASURY DEPARTMENT

# PUBLIC HEALTH REPORTS

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VOLUME 41 :: :: NUMBER 7

FEBRUARY 12 - - 1926

## SPECIAL ARTICLES

Rate of Reaeration of Sewage-Polluted Streams  
Smallpox in the United States During 1925



WASHINGTON  
GOVERNMENT PRINTING OFFICE  
1926

# UNITED STATES PUBLIC HEALTH SERVICE

HUGH S. CUMMING, *Surgeon General*

## DIVISION OF SANITARY REPORTS AND STATISTICS

Asst. Surg. Gen. B. J. LLOYD, *Chief of Division*

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# PUBLIC HEALTH REPORTS

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## THE RATE OF ATMOSPHERIC REAERATION OF SEWAGE-POLLUTED STREAMS<sup>1</sup>

By H. W. STREETER, M. Am. Soc. C. E., Sanitary Engineer, U S Public Health Service

### INTRODUCTION

In all problems of stream sanitation involving the maintenance of an adequate reserve supply of dissolved oxygen for the preservation of fish life or the prevention of nuisance, there are two major factors to be considered as determining the limiting degree of pollution of streams which is consistent with satisfying a given reserve oxygen requirement. One of the factors is the rate of biochemical deoxygenation of the stream water, proceeding in accordance with laws which have been described by Mr. Theriault.<sup>2</sup> The other element is the rate and extent of replenishment of its oxygen supply from three natural sources:

- (a) Dilution water entering the stream through the medium of tributaries and local inflow.
- (b) Biological reoxygenation through the activities of certain oxygen-producing plants.
- (c) Atmospheric reaeration, or absorption of oxygen directly from the atmosphere.

Of these three sources of oxygen, atmospheric reaeration is by far the most important in freely flowing streams, and this paper is limited to this subject.

It has been widely recognized that atmospheric reaeration is an important factor in the recovery of dissolved oxygen by flowing streams subjected to progressive deoxygenation but, as far as is known, the first effort to evaluate its effects quantitatively as observed under natural conditions, and to correlate such measured effects with the various physical elements which modify them, was made in connection with a survey of the pollution and self-purification of the Ohio River, by the United States Public Health Service, in 1914, 1915, and 1916. The results obtained from this phase of the survey, which recently have been published in the form

<sup>1</sup> The third of four papers comprising a symposium on stream pollution presented at the meeting of the sanitary engineering division of the American Society of Civil Engineers at Cincinnati, Ohio, Apr. 23, 1925, and published in the *Proceedings of the Society*, Vol. LI, No. 9, November, 1925. The first two papers were published in *Public Health Reports* for Jan. 15, and Feb. 5, 1926, respectively.

<sup>2</sup> *Public Health Reports*, for Feb. 5, 1926, pp. 207-217.

of a separate report,<sup>3</sup> have served as a basis for a further study of stream reaeration by the service in connection with a survey of the pollution of the Illinois River, in 1921 and 1922. Although a full analysis of the reaeration data obtained from the Illinois River study has not been completed, it has been carried forward sufficiently to suggest wherein the conclusions reached from the Ohio River study concerning the laws and factors underlying this phenomenon appear to be confirmed and wherein they may require modification. In this paper it is proposed to indicate what both studies have shown, of interest to engineers, as bearing on the theory of stream reaeration and its applications to problems of river sanitation. For the sake of brevity the term "reaeration" will be used hereafter in referring to this phenomenon.

#### THE NATURE OF STREAM REAERATION

The reaeration of flowing streams is governed primarily by the laws controlling the absorption of moderately soluble gases by unsaturated liquids kept in a state of continuous agitation. These laws have been studied recently by a group of chemists, the results of whose observations have been published in the form of a symposium.<sup>4</sup> In a paper included in this symposium Mr. H. G. Becker<sup>5</sup> states in the following general form the law of gas absorption which underlies stream reaeration: When a liquid and a moderately soluble gas are allowed to come in contact and the liquid is thoroughly mixed, "the rate of solution of the gas varies directly as the degree of unsaturation of the liquid." In the report on studies of reaeration in the Ohio River, to which reference has been made, it was stated that the rate of solution of oxygen at the surface is directly proportional to the existing saturation deficit (which is merely another way of stating the same law), and it was shown that results obtained by Dibdin and by Adeney and Becker afford experimental confirmation of this principle.

Expressed in terms of stream reaeration, the law thus stated signifies that in each successive unit of time a constant percentage of the remaining deficit in the dissolved oxygen content of the stream below the saturation point will be satisfied by absorption of oxygen from the atmosphere. The percentage will vary with conditions affecting the rate of absorption but will remain constant for a given condition. This is analogous to the law of deoxygenation discussed in Mr. Theriault's paper, except that in the latter case the rate of

<sup>3</sup> Studies of the pollution and natural purification of the Ohio River, Pt. III: Factors concerned in the phenomena of oxidation and reaeration. By H. W. Streeter and E. B. Phelps. Public Health Bulletin No. 146, U. S. Public Health Service.

<sup>4</sup> Journal of Industrial and Engineering Chemistry, December, 1924, pp. 1215-1230.

<sup>5</sup> Mechanism of absorption of moderately soluble gases in water. Journal of Industrial and Engineering Chemistry, December, 1924, pp. 1220-1224.

progress of the action is a direct function of the biochemical oxygen demand rather than the oxygen saturation deficit of the stream water.

In the Ohio River studies the law of oxygen absorption was formulated thus:

Let

$D_a$  = the initial oxygen saturation deficit, in terms of concentration;

$D$  = the oxygen deficit at any time,  $t$ , expressed in similar terms; and

$K_2$  = a coefficient defining the rate of reaeration.

Then

$$\frac{d D}{d t} = -K_2 D$$

whence

$$\log \frac{D}{D_a} = -K_2 t \dots \dots \dots (1)$$

On referring to Mr. Theriault's paper it will be noted that this expression is exactly similar to that which defines the rate of deoxygenation—that is,

$$\frac{d L}{d t} = -K_1 L$$

whence

$$\log \frac{L}{L_a} = -K_1 t \dots \dots \dots (2)$$

except that, in this case, the biochemical oxygen demand,  $L$ , replaces the oxygen deficit,  $D$ , and the coefficient of deoxygenation,  $K_1$ , replaces the coefficient of reaeration,  $K_2$ .

The coefficient of reaeration,  $K_2$ , defining the rate of absorption of oxygen, when expressed in terms of oxygen concentration in the stream, has been found, in the Ohio River study, to be modified by stream depth and by various physical conditions which influence the turbulence of flow, among which are the velocity of the current and the slope and irregularity of the channel. In the Ohio River these relations were found to be governed by a simple equation:

$$K_2 = c V^n \times H^{-2} \dots \dots \dots (3)$$

in which  $V$  represents the velocity of flow;  $H$ , the depth; and  $c$  and  $n$ , the constants for a particular river stretch, the values of which depend in part on the channel slope and irregularity. In most cases it has been found that the value of  $K_2$  is very nearly inversely proportional to the discharge of the stream, which term, multiplied by a proper reducing constant, may be substituted for the square of the depth in equation (3).

The rate of re-aeration is further modified by the water temperature, being accelerated at the higher and diminished at the lower temperatures. The controlling element in this temperature effect appears to lie in the fact that the rate of absorption of oxygen at the surface is limited by the process of diffusion, which, as shown by Black and Phelps,<sup>6</sup> is governed by a similar temperature relation. It was found in connection with the Ohio River study that when observed values of the re-aeration coefficient,  $K_2$ , are corrected in accordance with the factors developed by Black and Phelps, the corrected values are more closely correlated with the other stream conditions which have been noted than the uncorrected ones. A few results obtained from the Illinois River study have indicated that the rate of re-aeration of this stream does not appear to be

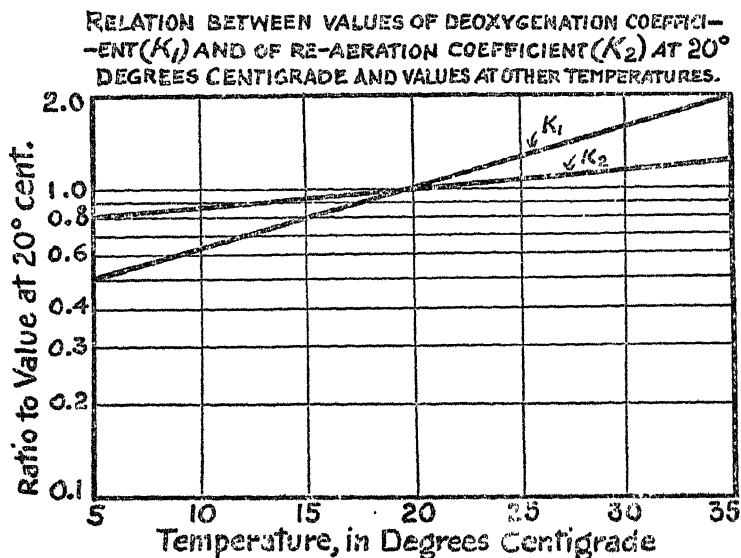


FIG. 4

influenced as much by seasonal changes in temperature as connections based on the diffusion factors developed by Black and Phelps would imply. However, the results of the recent experiments by Beeker, previously mentioned, and by Haslam, Hershey, and Keen,<sup>7</sup> carefully conducted under physical conditions closely approaching those of flowing streams, have confirmed the earlier findings of Black and Phelps in respect to the direction, and, roughly, to the extent of the temperature effect. As these experimental results are based on far more carefully controlled observations than would be possible under natural conditions, they must be interpreted, for the

<sup>6</sup> W. M. Black and E. B. Phelps. Report on discharge of sewage into New York Harbor, to the Board of Estimate and Apportionment, New York City, 1911.

<sup>7</sup> Journal of Industrial Engineering Chemistry, December, 1924, pp. 1224-1230.

present at least, as affording a reasonably accurate index of the influence of temperature variations on the rate of reaeration of streams. From a plot of the data compiled by Becker, converted to terms of the reaeration coefficient,  $K_2$ , the following temperature correction equation has been derived:

$$K_2 (T^\circ \text{C.}) = K_2 (20^\circ \text{C.}) \times [1.0159^{(T-20)}] \text{-----} (4)$$

This equation is proposed tentatively as probably representing most nearly, from available data, the effect of temperature variations on the value of the reaeration coefficient,  $K_2$ , under natural stream conditions. In Figure 4 is shown a plot of this temperature function as compared with a similar plot of temperature correction factors affecting the rate of deoxygenation, which was developed in connection with the Ohio River studies and has been discussed in Mr. Theriault's paper.

#### EMPIRICAL MEASUREMENT OF THE REAERATION RATE

From what has been stated concerning the extent and modes of action of atmospheric reaeration in streams acting as receivers of community wastes it is fairly obvious that no even reasonably accurate estimate can be made of the ability of a particular stream to maintain a specified minimum of reserve oxygen supply under a given degree of pollution without a definite knowledge of its capacity for reaeration. This thought leads to a consideration of available means for measuring the reaeration capacities of streams.

Owing to the fact that the rate of reaeration is influenced by a complexity of natural conditions, such as have been noted, methods of laboratory study that have been found suitable for determining the deoxygenation rate are not applicable in this case; hence recourse must be had to measurements in the stream.

If a sufficient number of representative streams could be found in which progressive deoxygenation was not a complicating element, the solution of this problem would be comparatively simple, involving merely the observation of the rate of increase in the dissolved oxygen content of a river between two or more sampling points located at known time intervals of flow from each other. Unfortunately, such a condition never exists, for reasons which are obvious. The true rate of reaeration, then, is always masked, as far as its observable effect on the dissolved oxygen is concerned, by having superimposed on it a rate of deoxygenation acting simultaneously in the opposite direction.

In order to take account of this condition, an equation was devised during the Ohio River studies whereby the resultant effect of two given rates, one of deoxygenation and the other of reaeration, on

progressive changes in the dissolved oxygen content of a stream can be calculated. This equation was derived by combining the differential expressions, equations (1) and (2), into a differential equation and integrating it to a variable time,  $t$ . The equation thus derived is:

$$D = \frac{K_1 L_a}{K_2 - K_1} (10^{-K_1 t} - 10^{-K_2 t}) + D_a \times 10^{-K_2 t} \quad \text{----- (5)}$$

in which

$D_a$  = the initial dissolved oxygen saturation deficit, in terms of concentration;

$D$  = the dissolved oxygen deficit after time,  $t$ , in similar terms;

$L_a$  = the initial biochemical oxygen demand;

$K_1$  = the coefficient of deoxygenation; and

$K_2$  = the coefficient of reaeration.

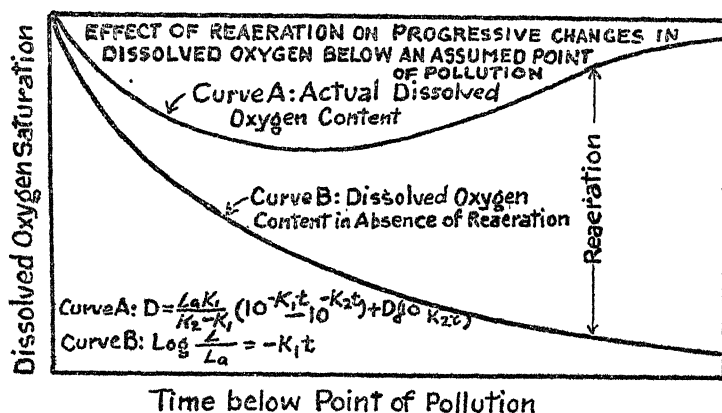


FIG. 5

The type of curve defined by this equation is shown by curve A in Figure 5, which has been reproduced from the report of the Ohio River studies to which reference has been made. For comparison with curve A, is shown curve B, representing the progressive deoxygenation which would occur in the absence of reaeration. Curve A is characteristic of progressive changes in the dissolved oxygen content of streams which frequently have been observed in streams below points of major pollution—for example, in the Illinois River below the outlet of the Chicago Drainage Canal; also in the White River below Indianapolis, Ind. Curve B is characteristic of conditions occasionally occurring in highly polluted streams when covered by a continuous ice sheet, temporarily cutting off reaeration.

By substituting in equation (5) known or observed values of all terms except that of the reaeration coefficient,  $K_2$ , the latter can readily be computed for a given river stretch. A large number of



calculations of this kind were made for a series of stretches of the Ohio River, based on observations of the dissolved oxygen and the oxygen demand at the terminals of each river section and on assumed values of the deoxygenation coefficient,  $K_1$ , derived from laboratory studies such as have been described by Mr. Theriault, and corrected to the stream temperature by the equation discussed in his paper. A limited number of parallel computations also have been made for a few stretches of the Illinois River. In Table 2 are shown, for comparison, values of the reaeration coefficient derived in this manner from observations in three stretches of the Ohio River and two stretches of the Illinois River presenting, approximately, similar flow and channel characteristics. The results in both cases cover the summer seasonal period, May to September, inclusive. A marked similarity is shown between values of  $K_2$  thus derived in the two streams. It is also noteworthy that the rates of reaeration observed in these five river stretches are approximately double the corresponding rate of deoxygenation as measured by the laboratory value of the coefficient,  $K_1$ ; thus, the mean value of  $K_2$  is approximately 0.24, whereas that of  $K_1$ , at the average river temperature for the given period, is about 0.12.

TABLE 2.—*Measured values of the reaeration coefficient,  $K_2$ , in three stretches of the Ohio River and two stretches of the Illinois River*

(May to September, inclusive)

Month	Values of reaeration coefficient, $K_2$				
	Ohio River			Illinois River	
	Stations 11-19	Stations 23-65	Stations 104-349	Stations 263-240	Stations 148-122
May.....	0.25	0.20	0.18	0.31	0.17
June.....	.19	.33	.27	.31	.28
July.....	.23	.23	.21	.21	.20
August.....	.22	.26	.21	.19	.37
September.....	.11	.19	.17	.31	.14
Mean.....	.22	.24	.21	.27	.27

The locations of river stretches are as follows:

Ohio River (river miles below confluence of Allegheny and Monongahela Rivers):

Stations 11-19..... Below Pittsburgh, Pa.

Stations 23-65..... From above mouth of Beaver River to above Steubenville, Ohio.

Stations 104-349.... From below Moundsville, W. Va., to above mouth of Scioto River.

Illinois River (river miles above mouth):

Stations 263-240.... From opposite Morris to opposite Ottawa, Ill.

Stations 148-122.... From Pekin to Havana, Ill.

Under some conditions, as, for example, where a stream flows rapidly over a shallow "riffle," the rate of reaeration may become greatly accelerated owing to the diminished depth and increased turbulence of flow. An instance of this kind is found in a short stretch of the Des Plaines River immediately below Joliet, Ill., where the channel is steep and rough and a series of shallow rapids is formed. Calculations of the value of  $K_2$  for this section of the river, based on daily observations extending over a period of 10 months, from August, 1921, to April, 1922, inclusive, have given indicated rates of reaeration roughly ten times those observed in deeper and less turbulent stretches of the Illinois River downstream. During the period of December to April, when conditions were most favorable for measuring the true rate of reaeration in this stretch of the river, the following values of  $K_2$  were obtained:

December.....	2.42
January.....	2.63
February.....	2.70
March.....	2.83
April.....	2.25
Mean.....	2.57

The average value of  $K_2$  for the full 10-month period was 2.00.

In general, optimum conditions for determining empirically the value of the reaeration coefficient exist where a stream contains a measurable quantity of dissolved oxygen and where the channel bottom is relatively free from unstable and readily oxidizable sludge deposits. When a stream is wholly or nearly depleted of dissolved oxygen and its channel contains any considerable quantities of decomposing sludge, a very sizable proportion of the atmospheric oxygen absorbed by such a stream may be withdrawn from solution almost immediately and thereby fail to be accounted in terms either of reserve oxygen or of biochemical oxygen demand. Under such circumstances the measured value of the reaeration coefficient may be widely in error and always will be lower than the true value. Where an excessively polluted stream contains a measurable supply of oxygen and is relatively free from sludge deposits during a part of the time, measurements of its reaeration capacity should be made when it is in this condition.

#### APPLICATIONS

The most important applications of the theory outlined in this paper are found in the estimation of dilution or sewage treatment requirements to be met at specified points along excessively polluted streams to avoid overtaxing their capacities for maintaining a specified reserve oxygen supply, or, conversely, in the calculation of the

future limiting permissible degree of pollution of streams now in a satisfactory condition from this standpoint. Both cases are similar in that they involve the prescription of a limiting biochemical oxygen demand of a stream at certain critical points. As the rate of deoxygenation is accelerated during the summer season to a greater proportionate extent than the rate of reoxygenation (the latter often is actually retarded during this season owing to a greatly diminished stream flow), conditions during the summer ordinarily are the most critical to be considered in this connection.

In Figure 6 is given an example showing the effect of temperature variations on progressive changes in the dissolved oxygen as calculated by equation (5), assuming an initial oxygen demand,  $L_a$ , of 20 parts per million and an initial oxygen saturation deficit of zero. The values of the deoxygenation and reoxygenation coefficients,  $K_1$  and  $K_2$ , have been assumed to be 0.10 and 0.20, respectively, at 20° C.

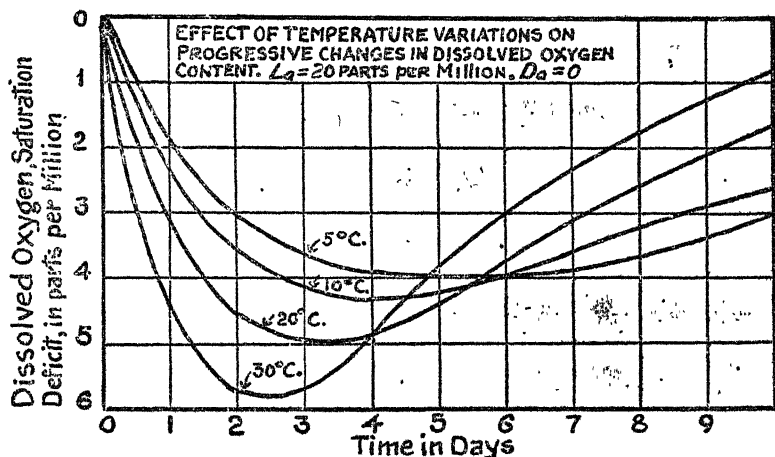


FIG. 6

and have been corrected for temperature in accordance with the factors shown in Figure 4. The time required to attain the maximum oxygen deficit is shown to vary from about two days at 30° C. to five days at 5° C.

The effect of variations in the initial oxygen demand,  $L_a$ , on the dissolved oxygen content of a stream below a point of pollution is illustrated by the curves in Figure 7, computed for a temperature of 20° C. and with an assumed initial oxygen deficit of 1.0 part per million. In Figure 8 is a plot of the maximum oxygen deficits and the times required to attain the maximum, as indicated by the curves in Figure 6, the plotted quantities being calculated, however, by a formula developed by differentiating equation (5) and placing the resulting expression equal to zero. In this case it is noted that

although the maximum deficit varies almost as a straight-line function of the initial oxygen demand, the time to attain the maximum lies within a comparatively narrow range—that is, between two and three days.

It thus appears that the points of maximum dissolved oxygen depletion in polluted streams normally should lie within comparatively short distances, as measured by time, below major sources of pollution, and that their positions should be affected to a much less extent by variations in the initial oxygen demand than they are by seasonal changes in temperature. Observations on numerous streams both in the United States and abroad, have confirmed this statement

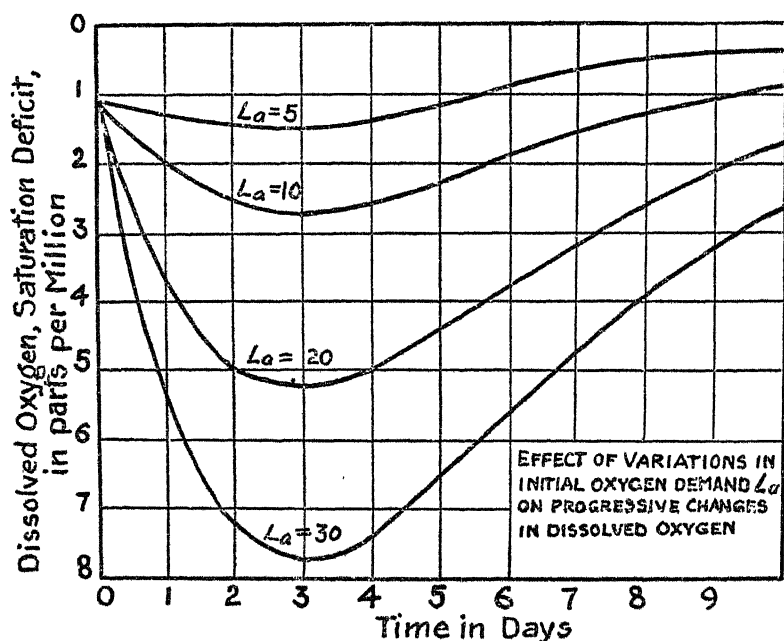


FIG. 7

in so far as it applies to streams which are not grossly polluted. If the pollution of a stream is so great, however, as to overtax its capacity for reaeration, zones of complete deoxygenation, indefinite in length, may be established at certain seasons of the year, notably during periods of dry-weather flow in summer. A condition of this kind is frequently aggravated by the tendency of grossly polluted streams to deposit a sludge mat in the bottom of the channel which may greatly augment the oxygen demand of the stream proper during critical seasons. Under these circumstances, the equations previously noted are not applicable and special methods of analysis must be used.

A good example of such a condition is found in the stretch of the upper Illinois River, extending from Joliet downstream for approximately 110 miles to the head of Peoria Lake, which receives at its upstream end the sewage of Chicago, discharged into it through the drainage canal and a stretch of the Des Plaines River channel. During eight months of the year, October to May, inclusive, this stretch of the river contains a measurable, although in places low, reserve supply of dissolved oxygen. During the four summer months, June to September, its dissolved oxygen content is practically exhausted throughout its entire length, owing, in part, to the lower

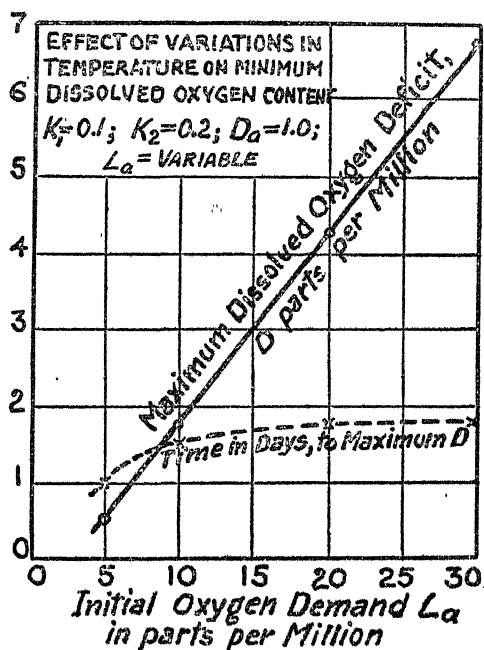


FIG. 8

dilution provided by the river and its tributaries, to the effect of the higher summer temperatures in causing an accelerated rate of deoxygenation as compared with that of reaeration, and to the greatly added deoxygenating effect of the dense mat of decomposing sludge with which the bottom of the river channel is covered.

Following the method previously outlined, an effort was made to calculate values of the reaeration coefficient,  $K_2$ , from observations made in the Illinois River during the summers of 1921 and 1922. Owing to the conditions at that time, previously noted, an accurate calculation was found to be impracticable, the values of the coefficient derived being obviously too low, and in some cases negative.

A similar calculation based on observations during the two months, October, 1921, and May, 1922, when the river temperatures approached those of summer and measurable quantities of dissolved oxygen were found in the river, gave results reasonably consistent both as to their agreement with each other and as to their relation to known physical

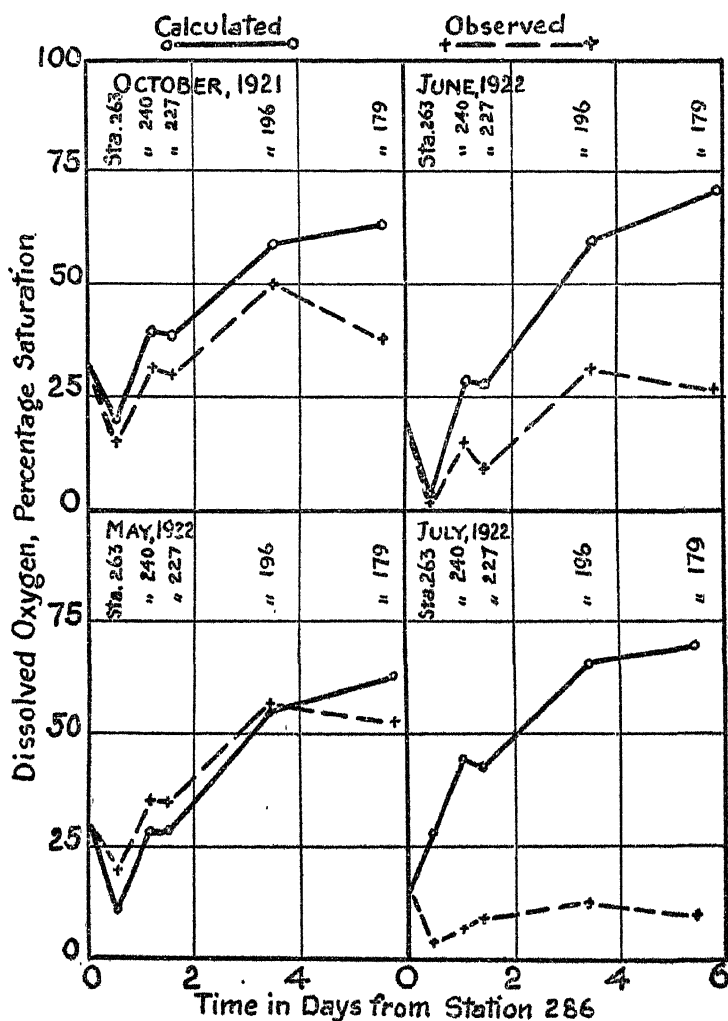


FIG. 9.—Comparison of calculated with observed dissolved oxygen contents at stations in Upper Illinois River. (Plot of data in Table 3.)

conditions in the several river stretches. From these results the following values of  $K_2$ , converted to their equivalents at 20° C., were derived for the five river stretches forming the upper section of the Illinois River between the limits stated (the station numbers referring to the locations, in stream-miles, above the mouth of the Illinois River):

River stretch	Value of $K_2$
Stations 286-263.....	0.68 (mean of October and May)
Stations 263-240.....	.33 (mean of October and May)
Stations 240-227.....	.15 (mean of May)
Stations 227-196.....	.23 (mean of October and May)
Stations 196-179.....	.14 (mean of May)

Although it is likely that the values thus derived (especially the lowest two) are affected to some extent by excessive and unaccountable deoxygenation due to sludge deposits, they are believed to be as nearly representative of the true rates of reaeration prevailing in the several river stretches as any other figures obtained from the present very incomplete series of calculations.

With the foregoing derived values of  $K_2$  as a basis, and using the resultant oxygen equation (5), a computation has been made of the progressive changes in the dissolved oxygen content of the upper Illinois River occurring in the stretch extending from station 286, below Joliet, to station 179, located 107 miles downstream, during each one of the four months, October 1921, and May, June, and July, 1922. In making the calculation (details of which are omitted for the sake of brevity), the value of the deoxygenation coefficient assumed was based on the laboratory figure in every instance except that of the river stretch from station 286 to station 263, for which the mean of the rates of deoxygenation observed in the stream during the two months, October and May, was used. The values of the reaeration coefficient assumed were the same as those just given, corrected to the river temperature. The calculated dissolved oxygen figures at each station are compared with the corresponding results of observation in Table 3 and illustrated graphically in Figure 9.

TABLE 3.—Comparison of calculated and observed dissolved oxygen contents of upper Illinois River at successive sampling stations

DISSOLVED OXYGEN SATURATION DEFICIT, IN PARTS PER MILLION

Station	October, 1921		May, 1922		June, 1922		July, 1922	
	Calculated	Observed	Calculated	Observed	Calculated	Observed	Calculated	Observed
263.....	8.4	9.1	8.6	8.0	8.6	8.8	6.2	8.6
240.....	6.1	7.1	7.0	6.3	6.4	7.6	4.8	8.0
227.....	6.5	7.4	7.0	6.4	6.5	8.1	4.9	8.0
196.....	4.3	5.3	4.4	4.3	3.6	5.9	3.0	7.5
179.....	4.9	6.6	3.6	4.6	2.6	6.3	2.7	8.1

DISSOLVED OXYGEN, PERCENTAGE OF SATURATION

263.....	20	14	11	19	3	1	28	2
240.....	39	32	28	35	28	15	44	6
227.....	38	29	28	34	27	9	43	8
196.....	59	50	55	61	60	31	65	12
179.....	63	37	63	52	71	26	69	9

On referring to Figure 9, it is noted that the calculated and observed figures agree with each other closely for May and reasonably well for October, but they diverge widely for June and July. The divergence probably is due largely to the effect of sludge decomposition in the channel during the summer months, as it represents the excess of dissolved oxygen, unaccounted for in terms of reaeration or normal deoxygenation, which has disappeared from the stream in passing from the uppermost to the lowest station and can be accounted for only as oxygen absorbed by the bottom sediments. The deoxygenating power of sludge deposited in the channel is thus indicated as having been sufficient, in July, 1922, to cause an absorption of a quantity of dissolved oxygen equivalent to 60 per cent of the saturation value

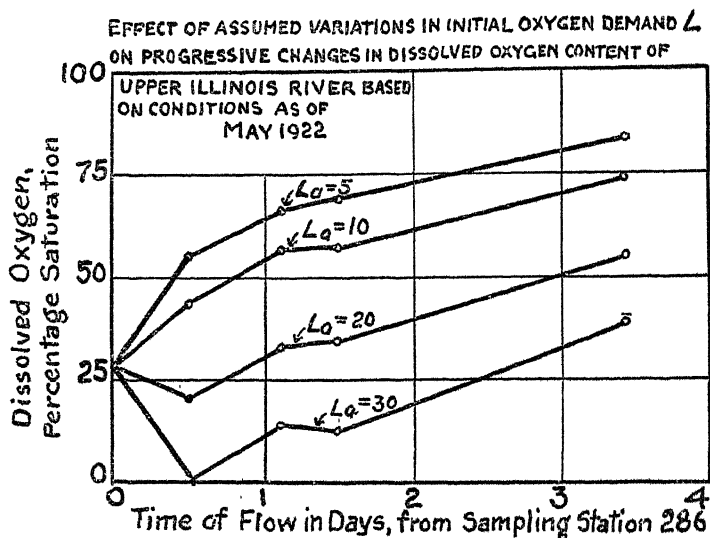


FIG. 10

in a river distance of 107 miles. Although it is hazardous to indulge in speculation in a problem as complex as that presented by the Illinois River, it seems fairly evident that the mere elimination of sludge deposits from the channel of this stream would go far toward restoring the effectiveness of its powers for self-purification.

The density of pollution of the stream proper, however, is fully as important a factor as its condition in respect to sludge deposits in determining its ability to recover its reserve supply of oxygen. To illustrate this point, a series of curves is given in Figure 10, showing calculated progressive changes in the dissolved oxygen content of the upper Illinois River with various assumed quantities of initial oxygen demand, the calculation being based on observed conditions at Station 286, below Joliet, during May, 1922. The figures from which Figure 10 have been plotted are given in Table 4. The comparison



is not valid except for purposes of illustration, as any lowering of the initial oxygen demand at Station 286 would necessarily entail improved conditions upstream, which, in turn, would cause an increased oxygen saturation at the point of departure, or vice versa. The comparative trends of the curves merely serve to give a rough illustration of the improvement which would be expected if the pollution of a stream at a given point were diminished, without any change occurring in its oxygen status above that point.

In general, it is evident that in almost any given instance where systematic measures are undertaken to relieve excessive stream pollution a reduction in the oxygen demand of the stream proper and an improvement in its condition with respect to sludge deposits should go hand in hand. This point is an important one to be borne in mind in forecasting the extent of beneficial results to be obtained from extensive stream-cleaning activities. The illustrations given in this paper err considerably on the side of conservatism in this respect, as this fact has not been taken into account in deriving them.

TABLE 4.—*Calculated percentages of dissolved oxygen saturation at stations in upper Illinois River, assuming different initial oxygen demand values,  $L_a$ , at uppermost station*

[Based on conditions as of May, 1922]

Station	Time of flow, in days	Calculated percentage of dissolved oxygen saturation, with initial oxygen demand, $L_a$ , assumed as—			
		5 parts per million	10 parts per million	20 parts per million	30 parts per million
286.....	0.00	28	28	28	28
263.....	.49	56	44	21	1
240.....	1.08	67	57	35	12
227.....	1.46	69	58	35	12
196.....	3.44	84	74	55	39

### CONCLUSIONS

From the studies briefly described in this paper, the following tentative conclusions appear to be justified:

1. The re-aeration of flowing streams proceeds substantially in accordance with physical laws which have already been described.
2. Its rate at any time is controlled mainly by the temperature, turbulence, and oxygen saturation deficit of the stream.
3. The empirical method of measuring rates of re-aeration which has been described, involving the use of the resultant oxygen equation (5) and the substitution therein of quantities derived by observations in the stream made under proper circumstances, gives results which appear to be consistent with known facts concerning the physical conditions influencing such rates.

4. By a proper combination of predetermined rates of reoxygenation and of reaeration, using equation (5), a reasonably accurate calculation may be made of the resultant progressive changes in the dissolved oxygen content of a stream under any given or assumed condition of flow, temperature, and initial degree of pollution.

The studies of stream reaeration thus far made along lines indicated in this paper have been confined to the Ohio and Illinois Rivers, surveys of which have offered the only sufficiently extensive and properly coordinated data thus far available for this purpose. A much more comprehensive analysis of the Illinois River data, as yet to be completed, probably will give a more satisfactory basis for judgment as to the wider applicability of the results of these studies than it has been practicable to establish within the limited scope of this paper. Some features of the present theory of stream reaeration and its method of application doubtless will require further modification as more experience is gained in testing it against specific problems. The studies thus far completed, however, have indicated that the theory in question, applied with due consideration of its practical limitations, offers a working hypothesis for a much more rational treatment of stream sanitation problems involving the prevention of conditions contributing to nuisance and to the destruction of fish life in streams than hitherto has been available.

## SMALLPOX IN THE UNITED STATES, 1925

REPORTS FROM STATE HEALTH OFFICERS OF 38 STATES FOR 11 MONTHS OF THE YEAR 1925, COMPARED WITH THE SAME PERIOD OF 1923 AND 1924

The following table gives a summary of the preliminary reports of cases of smallpox for the first 11 months of the years 1923, 1924, and 1925. These reports were received from State health officers and 38 States are included, these being all from which complete data for the entire period are now available.

The reports indicate great differences in the number of cases in different parts of the country and in the same States at different times. A considerable percentage of the cases of smallpox occur during epidemics and this fact accounts for some of the abrupt fluctuations noted in the table.

The total number of cases reported for the States for which comparable figures for eleven months of the three years are now available are as follows: 1923, 21,233 cases; 1924, 43,029 cases; 1925, 31,037 cases. The increase in 1924 over 1923 was 103 per cent and the decrease in 1925 from 1924 was 28 per cent. The figures for 1925 in these States were 46 per cent higher than those for 1923.

The figures are subject to revision when final reports are received for the year 1925, but it is not probable that the general results for the States included will be materially changed.

*Cases of smallpox reported during 11 months of 1925, by State health officers, compared with similar reports for the years 1923 and 1924*

	First quarter	Second quarter	Third quarter	October and No- vember	Total, 11 months
<b>New England:</b>					
Maine—					
1925.....	1	0	0	0	1
1924.....	4	12	2	1	19
1923.....	8	104	3	1	116
Vermont—					
1925.....	0	0	0	0	0
1924.....	56	7	1	0	64
1923.....	25	18	44	116	203
Massachusetts—					
1925.....	0	2	1	0	3
1924.....	5	5	2	0	12
1923.....	0	0	2	0	2
Connecticut—					
1925.....	0	4	0	0	4
1924.....	38	30	28	4	100
1923.....	20	15	14	2	51
Total—					
1925.....	1	6	1	0	8
1924.....	103	54	33	5	195
1923.....	53	137	64	119	372
<b>Middle Atlantic:</b>					
New York—					
1925.....	146	128	7	1	282
1924.....	107	94	50	189	440
1923.....	160	13	83	23	334
New Jersey—					
1925.....	95	77	13	0	185
1924.....	160	100	50	18	328
1923.....	2	4	18	3	27
Pennsylvania—					
1925.....	82	121	3	3	209
1924.....	49	101	138	45	332
1923.....	17	85	28	34	164
Total—					
1925.....	323	326	23	4	676
1924.....	315	295	238	252	1,100
1923.....	179	152	131	60	522
<b>East North Central:</b>					
Ohio—					
1925.....	1,832	1,460	309	176	3,777
1924.....	1,669	2,545	692	635	5,241
1923.....	725	938	210	250	2,123
Indiana—					
1925.....	1,346	884	211	323	2,764
1924.....	1,277	1,677	327	277	3,548
1923.....	552	683	198	199	1,632
Illinois—					
1925.....	728	557	95	109	1,489
1924.....	176	514	256	245	1,191
1923.....	554	247	72	43	916
Michigan—					
1925.....	293	296	89	31	709
1924.....	1,852	2,140	321	147	4,460
1923.....	728	313	247	601	1,889
Wisconsin—					
1925.....	677	588	145	53	1,463
1924.....	337	453	178	122	1,090
1923.....	506	417	129	176	1,228
Total—					
1925.....	4,876	3,785	849	692	10,202
1924.....	5,301	7,038	1,774	1,426	15,539
1923.....	3,065	2,598	856	1,269	7,788

*Cases of smallpox reported during 11 months of 1925, by State health officers, compared with similar reports for the years 1923 and 1924—Continued*

	First quarter	Second quarter	Third quarter	October and No- vember	Total, 11 months
<b>West North Central:</b>					
Minnesota—					
1925.....	650	184	42	38	923
1924.....	861	585	369	720	2,535
1923.....	962	353	161	254	1,730
Missouri—					
1925.....	225	253	43	17	538
1924.....	315	198	30	49	692
1923.....	243	164	86	101	594
North Dakota—					
1925.....	101	67	11	15	194
1924.....	134	188	123	61	506
1923.....	219	80	40	46	394
South Dakota—					
1925.....	132	87	13	22	254
1924.....	99	62	17	80	198
1923.....	128	33	43	31	235
Nebraska—					
1925.....	366	310	33	34	743
1924.....	36	89	42	49	216
1923.....	33	25	10	20	93
Kansas—					
1925.....	112	100	26	47	285
1924.....	540	513	53	13	1,119
1923.....	121	140	60	90	420
<b>Total—</b>					
1925.....	1,595	1,001	168	173	2,837
1924.....	1,925	1,615	634	972	5,146
1923.....	1,714	810	400	551	3,475
<b>South Atlantic:</b>					
Delaware—					
1925.....	0	7	2	0	9
1924.....	1	0	0	0	1
1923.....	1	0	1	0	2
Maryland—					
1925.....	2	13	1	0	16
1924.....	33	58	3	3	97
1923.....	0	3	9	8	20
District of Columbia—					
1925.....	27	32	0	0	59
1924.....	84	58	3	2	147
1923.....	2	2	22	29	55
Virginia—					
1925.....	71	125	43	23	262
1924.....	121	132	31	6	290
1923.....	128	304	48	37	517
West Virginia—					
1925.....	509	238	69	3	819
1924.....	200	121	24	42	397
1923.....	94	124	14	9	241
South Carolina—					
1925.....	225	303	76	63	727
1924.....	356	180	24	36	695
1923.....	105	76	15	243	452
Georgia—					
1925.....	123	242	27	30	422
1924.....	1,300	720	54	16	2,090
1923.....	123	150	100	67	470
Florida—					
1925.....	34	75	18	15	142
1924.....	70	44	2	1	117
1923.....	142	51	6	8	207
<b>Total—</b>					
1925.....	991	1,095	236	134	2,456
1924.....	2,164	1,313	144	106	3,727
1923.....	595	719	215	444	1,973
<b>East South Central:</b>					
Alabama—					
1925.....	2,551	1,278	185	196	4,210
1924.....	404	962	327	299	2,042
1923.....	97	189	18	20	274
Mississippi—					
1925.....	540	366	178	54	1,138
1924.....	171	218	92	128	609
1923.....	88	35	39	48	210
<b>Total—</b>					
1925.....	3,091	1,644	363	250	5,348
1924.....	635	1,180	419	417	2,651
1923.....	185	174	57	68	484

*Cases of smallpox reported during 11 months of 1925, by State health officers, compared with similar reports for the years 1923 and 1924—Continued*

	First quarter	Second quarter	Third quarter	October and No- vember	Total, 11 months
<b>West South Central:</b>					
Arkansas—					
1925.....	156	66	9	9	240
1924.....	138	146	27	114	425
1923.....	72	107	53	39	271
Louisiana—					
1925.....	516	166	37	42	761
1924.....	237	129	31	39	436
1923.....	315	232	46	38	631
Oklahoma—					
1925.....	486	163	49	33	736
1924.....	611	313	13	33	980
1923.....	465	603	46	113	1,229
Total—					
1925.....	1,158	400	95	84	1,737
1924.....	986	593	76	186	1,841
1923.....	852	914	145	130	2,131
<b>Mountain:</b>					
Montana—					
1925.....	195	69	37	47	348
1924.....	431	257	84	113	885
1923.....	126	111	65	249	551
Wyoming—					
1925.....	18	3	4	26	51
1924.....	0	7	5	21	33
1923.....	14	3	3	0	20
Colorado—					
1925.....	5	5	3	1	14
1924.....	31	18	14	11	74
1923.....	71	7	2	9	89
Arizona—					
1925.....	109	8	0	0	117
1924.....	17	74	9	35	135
1923.....	73	21	3	1	98
Utah—					
1925.....	43	5	5	22	75
1924.....	51	7	19	41	118
1923.....	74	14	9	53	150
Total—					
1925.....	370	90	49	96	605
1924.....	570	363	131	221	1,285
1923.....	358	156	82	282	878
<b>Pacific:</b>					
Washington—					
1925.....	605	541	214	322	1,682
1924.....	880	573	249	168	1,870
1923.....	555	421	155	217	1,351
Oregon—					
1925.....	300	145	51	169	745
1924.....	316	238	120	69	743
1923.....	236	322	112	95	771
California—					
1925.....	2,052	1,762	520	307	4,641
1924.....	4,075	3,303	864	710	8,952
1923.....	255	371	292	561	1,482
Total—					
1925.....	3,037	2,448	785	798	7,068
1924.....	5,271	4,114	1,233	947	11,565
1923.....	1,046	1,123	559	876	3,604
<b>Grand total—</b>					
1925.....	15,442	10,795	2,569	2,231	31,037
1924.....	17,230	16,585	4,682	4,532	43,029
1923.....	8,047	6,813	2,511	3,862	21,233

## DEATH RATES IN A GROUP OF INSURED PERSONS

COMPARISON OF RATES FOR PRINCIPAL CAUSES OF DEATH FOR NOVEMBER AND DECEMBER, 1925, AND FOR THE YEARS 1915 TO 1925, INCLUSIVE

The accompanying tables are taken from the Statistical Bulletin for January, 1926, published by the Metropolitan Life Insurance Co.

They present the mortality experience, according to principal causes of death, of the industrial insurance department of the company for November and December, 1925, and for the years 1915 to 1925, inclusive. The rates for 1925 are based on a strength of approximately 17,000,000 insured persons in the United States and Canada.

It should be borne in mind that these rates apply to a selected group of persons, and that for the years 1920 to 1924, inclusive, they varied between 71 and 75 per cent of the death rate for the United States registration area.

#### HEALTH RECORD FOR DECEMBER, 1925

The death rate for December, 1925, was 8.7 per 1,000—a new minimum rate for that month for this group of persons. The best previous rate for this month was 9 in each of the years 1922 and 1923. The Bulletin states that this excellent showing for the final month fittingly closes the best yearly health record in its history of the industrial populations of the United States and Canada.

As compared with December a year ago, the favorable contrast is shown for all principal causes of death except chronic nephritis and cancer, which registered substantially the same rates as for December, 1924. Noteworthy declines are shown for diphtheria, tuberculosis, cerebral hemorrhage, heart diseases, pneumonia, puerperal diseases, and accidents.

*Death rates (annual basis) for principal causes per 100,000 lives exposed, November and December, 1925, and December and year 1924*

[Industrial department, Metropolitan Life Insurance Co.]

Cause of death	Rate per 100,000 lives exposed <sup>1</sup>			
	December, 1925	November, 1925	December, 1924	Year 1924
Total, all causes.....	874.9	801.8	951.7	905.2
Typhoid fever.....	4.3	5.0	4.2	4.4
Measles.....	4.3	1.7	1.6	7.2
Scarlet fever.....	3.1	2.0	3.8	4.4
Whooping cough.....	4.2	3.8	5.3	7.4
Diphtheria.....	11.1	13.8	14.3	13.1
Influenza.....	16.5	13.8	19.5	16.0
Tuberculosis (all forms).....	85.3	78.4	97.3	104.2
Tuberculosis of respiratory system.....	79.7	69.9	86.0	92.3
Cancer.....	70.6	66.2	71.0	70.2
Diabetes mellitus.....	16.1	11.8	16.4	14.8
Cerebral hemorrhage.....	53.9	47.1	64.3	60.1
Organic diseases of heart.....	130.4	119.3	142.5	123.4
Pneumonia (all forms).....	99.3	77.0	105.3	88.6
Other respiratory diseases.....	15.3	11.0	18.4	13.8
Diarrhea and enteritis.....	18.9	20.6	21.1	32.2
Bright's disease (chronic nephritis).....	71.0	62.1	70.9	65.3
Puerperal state.....	12.8	15.1	15.6	16.8
Suicides.....	6.0	6.6	7.0	7.2
Homicides.....	6.4	7.2	7.8	7.1
Other external causes (excluding suicides and homicides).....	53.5	57.6	64.2	62.5
Traumatism by automobiles.....	15.0	17.0	17.4	15.7
All other causes.....	180.1	171.6	200.8	186.5

<sup>1</sup> All figures include infants insured under 1 year of age.

## RECORD FOR THE YEAR 1925

The health record in this group of insured persons for 1925 was the best in the history of the company, the death rate being slightly lower than the former minimum rate established in 1924. The death rate for 1925 was 8.46 per 1,000, as compared with 8.48 for the preceding year. While these rates are lower than those for the general population, they are an index as to comparative conditions. In 1924 the rate for this group was 71 per cent of the rate for the registration area of the United States.

The Bulletin states that while there were only 0.3 per cent fewer deaths than would have occurred under the 1924 death rate, there were 66,288 fewer deaths than would have occurred had the 1911 death rate prevailed.

New minimum death rates were established in 1925 for the following causes of death: Measles, scarlet fever, diphtheria, tuberculosis (all forms), tuberculosis of the respiratory system, and diseases incidental to pregnancy and childbirth.

The two outstanding favorable items especially noted are the remarkable improvement in the death rates for tuberculosis and the improvement in the principal epidemic diseases of childhood.

*Tuberculosis.*—For the first time in the record of this group, the death rate for tuberculosis fell below 100 per 100,000. Ten years ago the rate was 198 per 100,000.

*Communicable diseases of childhood.*—The death rate for diphtheria shows a decline of almost 20 per cent from the rate for 1924, of 34.2 per cent from the rate for 1923, of more than 50 per cent during the past five years, and of 62.6 per cent since 1911.

The death rate for measles dropped to the remarkably low figure of 2.5 per 100,000 in 1925. While this is gratifying, the records show that the death rate for measles is very irregular, running to some extent in cycles.

The scarlet fever death rate declined 21 per cent from the rate for 1924 and records a new minimum.

While whooping cough increased slightly over 1924, the death rate for 1925 is among the lowest rates recorded for this disease.

*Typhoid fever.*—The typhoid fever death rate (4.6 per 100,000) was slightly higher than for 1924 (4.4). This rise is not regarded as a particularly unfavorable development, however, as the rates for both years are well below those recorded for prior years. The drop in the typhoid death rate in this group since 1911 is 79.8 per cent.

*Influenza and pneumonia.*—The combined death rate for these diseases shows a slight increase over that for 1924, due entirely to an

increase in influenza deaths reported. The pneumonia record was favorable, the death rate being, with one exception, the lowest ever recorded for this group.

*The "degenerative diseases."*—The combined rate for diseases of the heart, chronic nephritis, and cerebral hemorrhage for 1925 (251.2 per 100,000) was slightly higher than that for 1924 (252.8).

*Cancer.*—The death rate for cancer shows no change as compared with the preceding year. The table shows very little variation in the mortality rate for this cause of death during the 11-year period 1915 to 1925.

The report comments on the fact that an investigation carried on by the company showed that more than 2 per cent of the deaths from cancer among its policyholders were of persons under 25 years of age, cancer in certain localities being especially frequent in early life.

*Diseases incidental to pregnancy and childbirth.*—The splendid record for diseases associated with maternity is an important item in the 1925 mortality experience. The previous low record, established in 1924, was lowered by about 2 per cent. The Bulletin states:

Puerperal diseases have proved a very productive field for public health work. Improved medical and nursing supervision during pregnancy, at the time of delivery, and during the immediate postpartum period, are believed to have been the chief factors in bringing about the more favorable showing.

*Diabetes.*—The death rate for diabetes mellitus was 15.5 per 100,000, as compared with 15.1 in 1924. The 1925 rate is identical with the rate for 1921, and is higher than the rates for 5 and 10 years ago. In 1923 and 1924 the death rate from diabetes declined, and the decline was coincident with the increasing use of insulin.

*Alcoholism and cirrhosis of the liver.*—The death rate for alcoholism was 2.9 per 100,000, as compared with 2.8 in 1924, 3.0 in 1923, 2.1 in 1922, 0.9 in 1921, and 0.6 in 1920.

The mortality from cirrhosis of the liver increased appreciably, having a rate of 6.9 per 100,000 in 1925 as compared with 5.8 in 1924.

*Automobile fatalities.*—The deaths from automobile accidents again show an increase over the preceding year, as has been the case each year since 1911. The rate increased from 15.9 per 100,000 in 1924 to 16.7 in 1925. The death rate from this cause has increased 50 per cent since 1920, has more than tripled since 1915, and is now seven times as high as it was in 1911.



*Death rates per 100,000 lives exposed (ages 1 and over) for principal causes of death, 1915 to 1925, inclusive*

[Industrial department, Metropolitan Life Insurance Co.]

Cause of death	1925	1924	1923	1922	1921	1920	1919	1918	1917	1916	1915
All causes of death.....	845.8	848.0	897.1	882.9	870.6	929.4	1,063.0	1,550.2	1,161.1	1,168.1	1,130.9
Typhoid fever.....	4.6	4.4	5.2	5.7	6.7	6.7	7.3	11.5	12.1	13.0	12.9
Communicable diseases of childhood.....	19.7	20.2	33.1	20.8	37.9	43.1	31.5	41.6	46.8	40.8	36.4
Measles.....	2.5	5.7	8.4	4.3	3.2	8.5	3.5	8.6	11.1	9.9	5.7
Scarlet fever.....	3.4	4.3	4.4	4.9	7.0	6.0	3.9	3.6	6.0	4.1	4.6
Whooping cough.....	3.6	3.5	4.8	2.6	3.9	6.6	3.2	10.1	5.1	5.8	4.7
Diphtheria.....	10.2	12.7	15.5	18.0	23.8	22.1	20.9	19.3	24.6	21.0	21.4
Influenza and pneumonia.....	88.3	84.4	107.7	95.3	76.5	139.5	214.1	542.2	155.4	138.1	119.5
Influenza.....	19.3	14.2	30.1	21.7	8.7	53.5	96.9	272.4	14.4	23.8	13.0
Pneumonia.....	69.0	70.2	77.6	73.7	67.8	106.1	117.2	269.8	121.0	114.3	106.5
Meningococcus meningitis.....	.7	.6	.7	.7	.9	1.0	1.3	2.8	3.5	1.5	1.3
Tuberculosis, all forms.....	98.1	104.4	110.5	114.2	117.4	137.9	156.5	189.0	188.9	190.2	197.8
Tuberculosis of respiratory system.....	86.9	93.4	100.6	103.6	105.6	124.0	141.6	171.2	172.3	172.8	180.0
Cancer, all forms.....	71.7	71.5	72.7	72.0	71.7	69.8	67.0	67.2	70.9	70.3	70.9
Diabetes mellitus.....	15.5	15.1	16.2	17.2	15.5	14.1	13.4	14.0	15.3	15.9	15.1
Cerebral hemorrhage, apoplexy.....	54.4	61.1	61.9	62.9	62.1	61.3	59.8	61.0	66.8	68.7	68.5
Diseases of heart.....	128.7	125.2	128.7	126.7	117.4	117.0	113.9	141.7	142.6	140.2	136.7
Diarrhea and enteritis.....	12.3	11.3	11.1	10.8	14.2	15.8	16.9	23.4	25.5	26.2	24.4
Chronic nephritis (Bright's disease).....	71.1	66.5	69.6	70.3	68.0	70.8	73.5	86.8	95.7	90.0	95.7
Puerperal state, total.....	16.9	17.2	17.9	19.0	19.8	23.0	20.0	27.4	18.2	17.6	18.0
Puerperal septicemia.....	6.6	6.6	6.9	7.4	8.5	8.0	6.7	7.3	7.5	7.2	7.2
Puerperal albuminuria and convulsions.....	3.8	4.3	4.2	4.7	4.9	5.0	4.8	4.9	5.1	5.0	4.8
Accidents of pregnancy.....	1.6	1.6	1.8	1.7	1.6	3.1	3.0	6.9	1.6	1.4	1.8
Total external causes.....	78.2	76.9	77.8	71.8	72.0	72.0	94.2	128.9	108.7	99.5	88.2
Suicides.....	7.0	7.3	7.4	7.5	7.6	6.1	6.8	7.6	9.3	9.8	12.2
Homicides.....	7.4	7.2	7.3	6.3	6.7	5.8	6.9	6.2	7.4	6.9	6.9
Accidents, total.....	63.8	62.4	63.0	58.0	57.5	59.6	63.8	75.5	76.5	73.2	67.3
Accidental burns.....	6.1	6.4	6.3	6.1	6.6	8.1	8.1	9.0	8.9	8.8	8.6
Accidental drowning.....	6.5	7.3	6.7	7.3	8.2	6.7	8.6	9.4	8.7	9.7	11.9
Accidental traumatism by fall.....	8.0	7.7	8.4	7.3	7.1	7.3	8.0	10.4	11.9	13.1	11.9
Accidental traumatism by machines.....	1.3	1.3	1.7	1.6	1.0	1.7	1.6	2.4	2.0	1.7	1.4
Railroad accidents.....	3.9	4.0	4.9	4.1	3.9	5.2	5.7	7.8	8.5	7.9	7.4
Auto accidents.....	16.7	15.9	15.4	13.6	12.2	11.1	10.7	10.3	9.7	7.4	5.4
All other accidents.....	21.2	19.7	19.5	18.0	18.5	19.5	21.2	26.1	26.8	24.6	20.7
War deaths.....	(1)	(1)	-----	.1	.1	.5	10.6	39.7	13.5	9.6	1.8
Other diseases and conditions.....	185.7	183.4	184.0	186.5	190.5	197.4	193.5	218.7	233.2	247.1	245.5

<sup>1</sup> Death rate less than 0.05 per 100,000.

## DEATHS DURING WEEK ENDED JANUARY 30, 1926

Summary of information received by telegraph from industrial insurance companies for week ended January 30, 1926, and corresponding week of 1925. (From the Weekly Health Index, February 2, 1926, issued by the Bureau of the Census, Department of Commerce)

	Week ended Jan. 30, 1926	Corresponding week 1925
Policies in force.....	63, 338, 917	58, 485, 831
Number of death claims.....	13, 268	12, 486
Death claims per 1,000 policies in force, annual rate	10. 9	11. 1

Deaths from all causes in certain large cities of the United States during the week ended January 30, 1926, infant mortality, annual death rate, and comparison with corresponding week of 1925. (From the Weekly Health Index, February 2, 1926, issued by the Bureau of the Census, Department of Commerce)

City	Week ended Jan. 30, 1926		Annual death rate per 1,000 corre- sponding week 1925	Deaths under 1 year		Infant mortality rate week ended Jan. 30, 1926 <sup>1</sup>
	Total deaths	Death rate <sup>1</sup>		Week ended Jan 30, 1926	Corre- sponding week 1925	
Total (68 cities).....	8,030	14.5	14.2	863	944	3.69
Akron.....	41			5	3	53
Albany.....	40	17.7	13.7	5	3	105
Atlanta.....	71			8	11	
White.....	30			3		
Colored.....	41	( <sup>2</sup> )		5		
Baltimore.....	331	21.7	17.2	30	25	88
White.....	266			21		75
Colored.....	69	( <sup>2</sup> )		9		146
Birmingham.....	67	17.0	17.7	8	9	
White.....	24			1		
Colored.....	43	( <sup>2</sup> )		7		
Boston.....	235	15.7	16.5	22	39	62
Bridgeport.....	33			6	2	102
Buffalo.....	128	12.4	12.7	18	21	75
Cambridge.....	30	13.1	13.1	3	5	50
Camden.....	46	18.6	15.0	7	4	118
Chicago.....	741	12.9	13.2	92	101	81
Cincinnati.....	121	15.4	16.8	9	11	56
Cleveland.....	189	10.5	10.6	15	27	39
Columbus.....	81	15.1	16.6	10	5	92
Dallas.....	58	15.6	13.5	8	6	
White.....	46			8		
Colored.....	12	( <sup>2</sup> )		0		
Dayton.....	35	10.6	7.5	2	2	31
Denver.....	76	14.1	17.6	5	10	
Des Moines.....	36	12.6	13.3	2	2	33
Detroit.....	284	11.9	10.4	41	62	60
Duluth.....	23	10.9	9.0	7	2	104
El Paso.....	63	31.3	21.4	12	9	
Erie.....	37			5	1	95
Fall River.....	44	17.8	17.4	7	10	102
Flint.....	18	7.2	7.2	4	3	66
Fort Worth.....	35	12.0	14.7	3	8	
White.....	26			3		
Colored.....	9	( <sup>2</sup> )		0		
Grand Rapids.....	41	13.9	11.5	5	4	72
Houston.....	59	18.7	18.3	4	5	
White.....	32			1		
Colored.....	27	( <sup>2</sup> )		3		
Indianapolis.....	102	14.8	14.5	7	11	51
White.....	84			5		42
Colored.....	18	( <sup>2</sup> )		2		110
Jacksonville, Fla.....	48	23.9	16.4	3	3	66
White.....	27			1		
Colored.....	21	( <sup>2</sup> )		2		
Jersey City.....	76	12.6	13.4	13	8	52
Kansas City, Kans.....	27	12.1	11.7	2	3	35
White.....	18			1		21
Colored.....	9	( <sup>2</sup> )		1		131
Kansas City, Mo.....	91	12.9	14.8	13	7	
Los Angeles.....	948			25	24	69

Deaths from all causes in certain large cities of the United States during the week ended January 30, 1926, infant mortality, annual death rate, and comparison with corresponding week of 1925. (From the Weekly Health Index, February 2, 1926, issued by the Bureau of the Census, Department of Commerce)—Continued

City	Week ended Jan. 30, 1926		Annual death rate per 1,000 corresponding week 1925	Deaths under 1 year		Infant mortality rate week ended Jan. 30, 1926 <sup>2</sup>
	Total deaths	Death rate <sup>1</sup>		Week ended Jan. 30, 1926	Corresponding week 1925	
Louisville.....	72	12.4	13.8	8	7	69
White.....	61			8		80
Colored.....	11	( <sup>3</sup> )		0		0
Lowell.....	32	15.1	15.1	6	3	112
Lynn.....	19	9.6	18.7	2	7	50
Memphis.....	73	21.8	36.8	10	9	
White.....	41			4		
Colored.....	32	( <sup>3</sup> )		6		
Milwaukee.....	103	10.7	8.2	9	13	42
Minneapolis.....	92	11.3	13.1	10	10	56
Nashville.....	57	21.8	18.8	4	5	
White.....	25			2		
Colored.....	32	( <sup>3</sup> )		2		
New Bedford.....	36	15.7	12.6	9	4	157
New Haven.....	46	13.4	16.6	7	10	96
New Orleans.....	213	20.8	20.3	32	15	
White.....	127			19		
Colored.....	86	( <sup>3</sup> )		13		
New York.....	1,524	13.5	13.9	148	174	60
Bronx Borough.....	186	11.1	11.6	13	8	43
Brooklyn Borough.....	486	11.5	12.8	54	66	55
Manhattan Borough.....	678	18.2	17.2	64	74	71
Queens Borough.....	120	9.4	9.6	12	20	54
Richmond Borough.....	45	17.0	22.2	5	6	88
Newark, N. J.....	115	13.3	12.0	13	16	62
Norfolk.....	40			5	2	93
White.....	15			1		30
Colored.....	25	( <sup>3</sup> )		4		199
Oakland.....	84	17.3	8.8	13	2	150
Oklahoma City.....	17			1	3	
Omaha.....	50	14.5	10.3	8	6	84
Paterson.....	40	14.7	10.9	5	8	87
Philadelphia.....	636	16.8	16.3	47	65	62
Pittsburgh.....	183	15.1	16.0	22	26	73
Portland, Oreg.....	82	15.1	13.1	5	7	51
Providence.....	76	14.8	14.8	9	11	73
Richmond.....	55	15.4	18.2	8	5	101
White.....	30			3		59
Colored.....	25	( <sup>3</sup> )		5		175
Rochester.....	76	12.5	11.5	11	5	88
St. Louis.....	226	14.3	14.7	15	17	
St. Paul.....	67	14.2	11.0	2	5	18
Salt Lake City.....	53	21.1	14.3	10	4	138
San Antonio.....	69	18.2	15.0	8	7	
San Diego.....	33	16.2	21.6	2	3	42
San Francisco.....	181	16.9	14.4	12	7	72
Schenectady.....	37	20.8	9.6	6	0	173
Seattle.....	71			2	3	19
Somerville.....	18	9.5	26.8	3	4	78
Springfield, Mass.....	38	13.9	16.1	5	8	72
Syracuse.....	38	10.9	12.6	3	6	38
Tacoma.....	22	11.0	13.5	3	2	70
Toledo.....	70	13.8	15.1	8	7	78
Trenton.....	45	17.8	14.6	2	7	33
Utica.....	30	18.5	15.4	7	4	154
Washington, D. C.....	145	15.2	16.0	12	26	68
White.....	93			5		
Colored.....	52	( <sup>3</sup> )		7		
Waterbury.....	32			3	4	64
Wilmington, Del.....	35	15.0	11.5	3	4	70
Worcester.....	56	15.3	14.5	7	6	81
Yonkers.....	35	16.1	14.2	6	4	135
Youngstown.....	31	10.1	11.4	6	8	76

<sup>1</sup> Annual rate per 1,000 population.

<sup>2</sup> Deaths under 1 year per 1,000 births—An annual rate based on deaths under 1 year for the week and estimated births for 1924. Cities left blank are not in the registration area for births.

<sup>3</sup> Data for 63 cities.

<sup>4</sup> Deaths for week ended Friday, January 29, 1926.

<sup>5</sup> In the cities for which deaths are shown by color, the colored population in 1920 constituted the following per cents of the total population: Atlanta 31, Baltimore 15, Birmingham 20, Dallas 12, St. Louis 16, Houston 25, Kansas City 17.

# PREVALENCE OF DISEASE

*No health department, State or local, can effectively prevent or control disease without knowledge of when, where, and under what conditions cases are occurring*

## UNITED STATES

### CURRENT WEEKLY STATE REPORTS

Those reports are preliminary, and the figures are subject to change when later returns are received by the State health officers

#### Reports for Week Ended February 6, 1926

ALABAMA		CALIFORNIA	
	Cases		Cases
Cerebrospinal meningitis.....	1	Cerebrospinal meningitis:	
Chicken pox.....	36	Amador County.....	1
Dengue.....	1	Hawthorne.....	1
Diphtheria.....	17	Lincoln.....	1
Influenza.....	311	Los Angeles.....	1
Malaria.....	10	Patterson.....	1
Measles.....	22	Sausalito.....	1
Mumps.....	50	Stockton.....	1
Pellagra.....	6	Tuolumne.....	1
Pneumonia.....	239	Chicken pox.....	323
Polomyelitis.....	1	Diphtheria.....	123
Scarlet fever.....	20	Influenza.....	525
Smallpox.....	36	Lethargic encephalitis:	
Tetanus.....	2	Los Angeles.....	1
Tuberculosis.....	41	Los Angeles County.....	1
Typhoid fever.....	5	Stockton.....	1
Whooping cough.....	28	Measles.....	58
		Mumps.....	197
		Polomyelitis:	
		San Diego.....	1
		San Diego County.....	1
		Scarlet fever.....	161
		Smallpox:	
		Los Angeles.....	88
		Los Angeles County.....	37
		Oakland.....	13
		Sacramento.....	5
		Sacramento County.....	7
		San Francisco.....	6
		Scattering.....	25
		Typhoid fever.....	11
		Whooping cough.....	51
ARIZONA		COLORADO	
	Cases		Cases
Cerebrospinal meningitis.....	1	Botulism.....	2
Chicken pox.....	25	Chicken pox.....	40
Diphtheria.....	6	Diphtheria.....	17
Influenza.....	248	Influenza.....	4
Malaria.....	36	Measles.....	10
Measles.....	2	Mumps.....	6
Mumps.....	10	Pneumonia.....	7
Pellagra.....	6	Scarlet fever.....	21
Scarlet fever.....	7	Tuberculosis.....	46
Smallpox.....	9		
Trachoma.....	1		
Tuberculosis.....	22		
Typhoid fever.....	3		
Whooping cough.....	15		

<sup>1</sup> 10 cases of smallpox were reported Feb. 1, 1926, in the marine hospital at San Francisco, Calif.

COLORADO—continued	
	Cases
Typhoid fever.....	3
Vincent's angina.....	1
Whooping cough.....	64

CONNECTICUT	
Anthrax.....	1
Cerebrospinal meningitis.....	1
Chicken pox.....	120
Conjunctivitis (infectious).....	18
Diphtheria.....	51
German measles.....	11
Influenza.....	13
Measles.....	714
Mumps.....	11
Pneumonia (broncho).....	39
Pneumonia (lobar).....	48
Poliomyelitis.....	1
Scarlet fever.....	90
Septic sore throat.....	3
Tuberculosis (pulmonary).....	25
Typhoid fever.....	5
Whooping cough.....	71

DELAWARE	
Chicken pox.....	9
Diphtheria.....	1
Influenza.....	4
Measles.....	66
Pneumonia.....	1
Scarlet fever.....	2

DISTRICT OF COLUMBIA	
Chicken pox.....	41
Diphtheria.....	30
Influenza.....	10
Measles.....	24
Pneumonia.....	88
Scarlet fever.....	21
Tuberculosis.....	27
Typhoid fever.....	2
Whooping cough.....	12

FLORIDA	
Chicken pox.....	31
Diphtheria.....	14
Influenza.....	38
Measles.....	5
Mumps.....	17
Pneumonia.....	12
Scarlet fever.....	18
Smallpox.....	130
Tetanus.....	1
Tuberculosis.....	14
Typhoid fever.....	5
Whooping cough.....	1

GEORGIA	
Cerebrospinal meningitis.....	1
Chicken pox.....	36
Diphtheria.....	22
Hookworm disease.....	2
Influenza.....	850
Malaria.....	12
Measles.....	87
Mumps.....	46
Pneumonia.....	153
Scarlet fever.....	7
Septic sore throat.....	12

GEORGIA—continued	
Smallpox.....	15
Trachoma.....	1
Tuberculosis.....	16
Typhoid fever.....	4
Typhus fever.....	1
Whooping cough.....	25

IDAHO	
Chicken pox.....	3
Diphtheria.....	8
Measles.....	13
Mumps.....	3
Scarlet fever.....	16
Smallpox.....	12
Typhoid fever.....	1
Whooping cough.....	15

ILLINOIS	
Cerebrospinal meningitis:	
Cook County.....	1
Cumberland County.....	1
Diphtheria.....	106
Influenza.....	72
Lethargic encephalitis:	
Marion County.....	1
Saline County.....	1
Measles.....	748
Pneumonia.....	502
Poliomyelitis:	
Bureau County.....	1
Fayette County.....	1
Scarlet fever.....	550
Smallpox:	
Champaign County.....	35
Scattering.....	26
Tuberculosis.....	237
Typhoid fever.....	14
Whooping cough.....	215

INDIANA	
Cerebrospinal meningitis.....	1
Chicken pox.....	81
Diphtheria.....	37
Influenza.....	44
Measles.....	567
Mumps.....	1
Pneumonia.....	26
Poliomyelitis.....	5
Scarlet fever.....	282
Smallpox.....	110
Trachoma.....	2
Tuberculosis.....	35
Typhoid fever.....	1
Whooping cough.....	69

IOWA	
Cerebrospinal meningitis.....	1
Chicken pox.....	47
Diphtheria.....	20
Measles.....	245
Mumps.....	56
Pneumonia.....	8
Scarlet fever.....	81
Smallpox.....	41
Tuberculosis.....	8
Whooping cough.....	11

KANSAS		MASSACHUSETTS	
	Cases		Cases
Cerebrospinal meningitis:		Cerebrospinal meningitis.....	2
Topeka.....	1	Chicken pox.....	168
Wichita.....	1	Conjunctivitis (suppurative).....	11
Chicken pox.....	121	Diphtheria.....	53
Diphtheria.....	28	German measles.....	80
German measles.....	2	Hookworm disease.....	2
Influenza.....	14	Influenza.....	13
Measles.....	86	Lethargic encephalitis.....	2
Mumps.....	18	Measles.....	1,538
Pneumonia.....	93	Mumps.....	85
Polioomyelitis—Severy.....	1	Ophthalmia neonatorum.....	23
Scarlet fever.....	96	Pneumonia (lobar).....	128
Smallpox.....	2	Polioomyelitis.....	1
Tetanus.....	1	Scarlet fever.....	332
Trachoma.....	1	Septic sore throat.....	5
Tuberculosis.....	50	Trachoma.....	2
Typhoid fever.....	3	Tichinosis.....	1
Whooping cough.....	75	Tuberculosis (pulmonary).....	115
		Tuberculosis (other forms).....	21
		Typhoid fever.....	8
		Whooping cough.....	310
LOUISIANA		MICHIGAN	
Cerebrospinal meningitis.....	1	Diphtheria.....	85
Diphtheria.....	21	Measles.....	1,774
Influenza.....	261	Pneumonia.....	149
Pneumonia.....	80	Scarlet fever.....	362
Scarlet fever.....	22	Smallpox.....	12
Smallpox.....	74	Tuberculosis.....	45
Tuberculosis.....	32	Typhoid fever.....	7
Typhoid fever.....	17	Whooping cough.....	365
MAINE		MINNESOTA	
Chicken pox.....	27	Chicken pox.....	150
Diphtheria.....	4	Diphtheria.....	47
German measles.....	2	Influenza.....	1
Influenza.....	6	Measles.....	71
Measles.....	27	Polioomyelitis.....	1
Mumps.....	18	Scarlet fever.....	421
Pneumonia.....	17	Smallpox.....	24
Polioomyelitis.....	1	Tuberculosis.....	42
Scarlet fever.....	41	Typhoid fever.....	4
Tuberculosis.....	10	Whooping cough.....	50
Typhoid fever.....	3		
Whooping cough.....	25	MISSISSIPPI	
MARYLAND <sup>2</sup>		Diphtheria.....	10
Cerebrospinal meningitis.....	1	Influenza.....	577
Chicken pox.....	97	Scarlet fever.....	12
Diphtheria.....	30	Smallpox.....	7
Dysentery.....	1	Typhoid fever.....	2
German mensles.....	1		
Influenza.....	1,094	MISSOURI	
Lethargic encephalitis.....	2	Chicken pox.....	103
Malaria.....	2	Diphtheria.....	80
Measles.....	1,539	Influenza.....	2
Mumps.....	166	Measles.....	173
Paratyphoid fever.....	1	Mumps.....	40
Pneumonia (broncho).....	145	Pneumonia.....	8
Pneumonia (lobar).....	161	Rabies (in animals).....	2
Scarlet fever.....	64	Scarlet fever.....	213
Septic sore throat.....	4	Smallpox.....	12
Tetanus.....	1	Tetanus.....	2
Tuberculosis.....	77	Trachoma.....	1
Typhoid fever.....	4	Tuberculosis.....	42
Typhus fever.....	1	Typhoid fever.....	5
Whooping cough.....	34	Whooping cough.....	47

<sup>2</sup> Week ended Friday.

## MONTANA

	Cases
Chicken pox.....	49
German measles.....	8
Measles.....	7
Mumps.....	39
Scarlet fever.....	27
Smallpox.....	12
Tuberculosis.....	5
Whooping cough.....	17

## NEBRASKA

Chicken pox.....	35
Diphtheria.....	10
German measles.....	1
Measles.....	15
Mumps.....	2
Paratyphoid fever.....	1
Pneumonia.....	5
Scarlet fever.....	51
Smallpox.....	21
Whooping cough.....	9

## NEW JERSEY

Anthrax.....	1
Cerebrospinal meningitis.....	3
Chicken pox.....	305
Diphtheria.....	95
Dysentery.....	1
Influenza.....	38
Measles.....	1,928
Pneumonia.....	206
Scarlet fever.....	214
Typhoid fever.....	2
Whooping cough.....	77

## NEW MEXICO

Chicken pox.....	15
Diphtheria.....	1
Influenza.....	205
Measles.....	5
Mumps.....	5
Pneumonia.....	29
Scarlet fever.....	11
Smallpox.....	4
Tuberculosis.....	44
Typhoid fever.....	1
Whooping cough.....	23

## NEW YORK

(Exclusive of New York City)

Chicken pox.....	371
Diphtheria.....	79
Dysentery.....	3
German measles.....	216
Influenza.....	107
Lethargic encephalitis.....	2
Measles.....	1,037
Mumps.....	170
Pneumonia.....	365
Polioomyelitis.....	3
Scarlet fever.....	274
Septic sore throat.....	12
Smallpox.....	1
Trachoma.....	3
Typhoid fever.....	19
Vincent's angina.....	6
Whooping cough.....	338

## NORTH CAROLINA

	Cases
Chicken pox.....	201
Diphtheria.....	34
German measles.....	36
Measles.....	110
Ophthalmia neonatorum.....	1
Polioomyelitis.....	1
Scarlet fever.....	65
Septic sore throat.....	1
Smallpox.....	26
Typhoid fever.....	3
Whooping cough.....	170

## OKLAHOMA

(Exclusive of Tulsa and Oklahoma City)

Chicken pox.....	41
Diphtheria.....	17
Influenza.....	569
Malaria.....	16
Measles.....	10
Mumps.....	26
Pellagra.....	2
Pneumonia.....	240
Polioomyelitis—Love.....	1
Scarlet fever.....	34
Smallpox.....	
Carter.....	14
Scattering.....	13
Typhoid fever.....	5
Whooping cough.....	45

## OREGON

Cerebrospinal meningitis.....	4
Chicken pox.....	20
Diphtheria.....	12
Influenza.....	87
Measles.....	16
Mumps.....	36
Pneumonia.....	13
Scarlet fever.....	37
Smallpox.....	
Deschutes County.....	11
Scattering.....	40
Tuberculosis.....	20
Typhoid fever.....	5
Whooping cough.....	31

## PENNSYLVANIA

Cerebrospinal meningitis—Pittsburgh.....	1
Chicken pox.....	447
Diphtheria.....	132
German measles.....	17
Impetigo contagiosa.....	1
Measles.....	2,052
Mumps.....	120
Pneumonia.....	60
Polioomyelitis—Williamsport.....	1
Scabies.....	1
Scarlet fever.....	134
Smallpox—Steelton.....	1
Tuberculosis.....	99
Typhoid fever.....	19
Whooping cough.....	238

RHODE ISLAND		TEXAS—continued	
	Cases		Cases
Chicken pox.....	25	Tuberculosis.....	14
Diphtheria.....	7	Typhoid fever.....	5
Measles.....	561	Whooping cough.....	20
Mumps.....	5		
Ophthalmia neonatorum.....	1	UTAH	
Pneumonia.....	3	Cerebrospinal meningitis—Ogden.....	1
Scarlet fever.....	14	Chicken pox.....	57
Tuberculosis.....	3	Diphtheria.....	6
Typhoid fever.....	3	Influenza.....	224
Whooping cough.....	17	Measles.....	7
		Mumps.....	35
SOUTH CAROLINA		Pneumonia.....	9
Dengue.....	2	Scarlet fever.....	4
Diphtheria.....	17	Smallpox.....	4
Influenza.....	1,431	Tuberculosis.....	2
Malaria.....	64	Typhoid fever.....	3
Measles.....	5	Whooping cough.....	43
Scarlet fever.....	8		
Smallpox.....	17	VERMONT	
Tuberculosis.....	47	Chicken pox.....	29
Typhoid fever.....	15	Diphtheria.....	2
Whooping cough.....	103	Measles.....	19
		Mumps.....	11
SOUTH DAKOTA		Scarlet fever.....	15
Cerebrospinal meningitis.....	1	Typhoid fever.....	1
Chicken pox.....	15	Whooping cough.....	26
Diphtheria.....	9		
Mumps.....	2	VIRGINIA	
Pneumonia.....	6	Cerebrospinal meningitis—Dinwiddie	
Scarlet fever.....	71	County.....	2
Smallpox.....	1	Smallpox.....	5
Tuberculosis.....	1		
Typhoid fever.....	1	WASHINGTON	
		Cerebrospinal meningitis—Pierce County..	1
TENNESSEE		Chicken pox.....	94
Cerebrospinal meningitis:		Diphtheria.....	16
Dyer County.....	1	German measles.....	16
Lincoln County.....	1	Measles.....	11
Chicken pox.....	53	Mumps.....	111
Diphtheria.....	16	Scarlet fever.....	126
Influenza.....	158	Smallpox:	
Malaria.....	1	Everett.....	15
Measles.....	4,226	Grays Harbor County.....	10
Mumps.....	19	Skagit County.....	10
Ophthalmia neonatorum.....	1	Tacoma.....	18
Pellagra.....	5	Yakima County.....	23
Pneumonia.....	114	Seattle.....	25
Polioomyelitis:		Tuberculosis.....	12
Gibson County.....	1	Typhoid fever.....	4
Nashville.....	1	Whooping cough.....	62
Obion County.....	1		
Scarlet fever.....	28	WEST VIRGINIA	
Smallpox.....	21	Diphtheria.....	8
Tuberculosis.....	42	Scarlet fever.....	6
Typhoid fever.....	9	Typhoid fever—Hinton.....	6
Whooping cough.....	7		
		WISCONSIN	
TEXAS		Milwaukee:	
Chicken pox.....	125	Chicken pox.....	89
Diphtheria.....	25	Diphtheria.....	23
Influenza.....	106	German measles.....	2
Measles.....	5	Influenza.....	2
Mumps.....	21	Measles.....	23
Pellagra.....	2	Mumps.....	24
Pneumonia.....	37	Pneumonia.....	24
Polioomyelitis.....	1	Scarlet fever.....	19
Scarlet fever.....	38	Tuberculosis.....	13
Smallpox.....	81	Whooping cough.....	49

\* Incomplete report.



WISCONSIN—continued	
Scattering:	Cases
Chicken pox.....	135
Diphtheria.....	29
German measles.....	11
Influenza.....	33
Lethargic encephalitis.....	1
Measles.....	251
Mumps.....	77
Pneumonia.....	23
Scarlet fever.....	157
Smallpox.....	11
Tuberculosis.....	16

WISCONSIN—continued	
Scattering—Continued.	Cases
Typhoid fever.....	6
Whooping cough.....	109
WYOMING	
Chicken pox.....	8
Diphtheria.....	1
Influenza.....	5
Measles.....	2
Mumps.....	9
Pneumonia.....	2
Scarlet fever.....	19
Whooping cough.....	24

### Reports for Week Ended January 30, 1926

DISTRICT OF COLUMBIA	
	Cases
Chicken pox.....	41
Diphtheria.....	20
Influenza.....	6
Measles.....	32
Mumps.....	2
Pneumonia.....	53
Scarlet fever.....	27
Tuberculosis.....	23
Whooping cough.....	7
NORTH DAKOTA	
Chicken pox.....	46
Diphtheria.....	7
German measles.....	23
Influenza.....	17
Measles.....	24
Mumps.....	82

NORTH DAKOTA—continued	
	Cases
Pneumonia.....	32
Poliomyelitis.....	3
Scarlet fever.....	78
Smallpox.....	8
Whooping cough.....	11

SOUTH CAROLINA	
	Cases
Dengue.....	2
Diphtheria.....	17
Influenza.....	1,460
Malaria.....	74
Measles.....	11
Scarlet fever.....	8
Smallpox.....	11
Tuberculosis.....	38
Typhoid fever.....	2
Whooping cough.....	94

### SUMMARY OF MONTHLY REPORTS FROM STATES

The following summary of monthly State reports is published weekly and covers only those States from which reports are received during the current week:

State	Cerebro-spinal meningitis	Diphtheria	Influenza	Malaria	Measles	Pellagra	Poliomyelitis	Scarlet fever	Smallpox	Typhoid fever
<i>December, 1925</i>										
Montana.....	1	41	10		12		3	150	27	21
Pennsylvania.....	9	890		1	4,357	1	6	1,967	0	149
South Dakota.....	2	40	4		10		4	366	11	6
Utah.....	11	174	170		23			110	39	7
Virginia.....	8	324	1,876	23	441	13	3	438	34	63

### PLAGUE ERADICATIVE MEASURES IN THE UNITED STATES

The following items were taken from the reports of plague eradication measures from the cities named:

*Los Angeles, Calif.*

Week ended January 23, 1926:

Number of rats trapped.....	3,382
Number of rats found to be plague infected.....	0
Number of squirrels examined.....	823
Number of squirrels found to be plague infected.....	0
Number of mice trapped.....	3,260
Number of mice found to be plague infected.....	0
Date of discovery of last plague-infected rodent. Nov 6 1925	

## Oakland, Calif.

(Including other East Bay communities)

Week ended January 23, 1926:

Number of rats trapped.....	424
Number of rats found to be plague infected.....	0

Totals:

Number of rats trapped Jan. 1, 1925 to Jan. 23, 1926.....	80, 713
Number of rats found to be plague infected.....	21
Number of squirrels examined May 1 to Aug. 1, 1925.....	7, 277
Number of squirrels found to be plague infected.....	0
Number of mice trapped Jan. 1, 1925 to Jan. 23, 1926.....	31, 490

Date of discovery of last plague-infected rat, Mar. 4, 1925.

Date of last human case, Sept. 10, 1919.

**GENERAL CURRENT SUMMARY AND WEEKLY REPORTS FROM CITIES**

*Diphtheria*.—For the week ended January 23, 1926, 36 States reported 1,577 cases of diphtheria. For the week ended January 24, 1925, the same States reported 1,679 cases of this disease. One hundred cities, situated in all parts of the country and having an aggregate population of more than 29,600,000, reported 814 cases of diphtheria for the week ended January 23, 1926. Last year for the corresponding week they reported 896 cases. The estimated expectancy for these cities was 1,150 cases. The estimated expectancy is based on the experience of the last nine years, excluding epidemics.

*Measles*.—Thirty-three States reported 9,951 cases of measles for the week ended January 23, 1926, and 2,121 cases of this disease for the week ended January 24, 1925. One hundred cities reported 7,778 cases of measles for the week this year, and 1,043 cases last year.

*Poliomyelitis*.—The health officers of 38 States reported 13 cases of poliomyelitis for the week ended January 23, 1926. The same States reported 17 cases for the week ended January 24, 1925.

*Scarlet fever*.—Scarlet fever was reported for the week as follows: Thirty-six States—this year, 4,088 cases; last year, 4,281 cases; 100 cities—this year, 1,647 cases; last year, 1,977 cases; estimated expectancy, 1,223 cases.

*Smallpox*.—For the week ended January 23, 1926, 36 States reported 965 cases of smallpox. Last year for the corresponding week they reported 1,205 cases. One hundred cities reported smallpox for the week as follows: 1926, 203 cases; 1925, 388 cases, estimated expectancy, 122 cases. Eight deaths from smallpox were reported by these cities for the week this year—at Los Angeles, Calif.

*Typhoid fever*.—Two hundred and nine cases of typhoid fever were reported for the week ended January 23, 1926, by 35 States. For the corresponding week of 1925 the same States reported 289 cases of this disease. One hundred cities reported 75 cases of typhoid fever for the week this year and 95 cases for the corresponding week last year. The estimated expectancy for these cities was 55 cases.

*Influenza and pneumonia.*—Deaths from influenza and pneumonia were reported for the week by 93 cities, with a population of nearly 29,000,000, as follows: 1926, 1,214 deaths; 1925, 1,181.

*City reports for week ended January 23, 1926*

The "estimated expectancy" given for diphtheria, poliomyelitis, scarlet fever, smallpox, and typhoid fever is the result of an attempt to ascertain from previous occurrence how many cases of the disease under consideration may be expected to occur during a certain week in the absence of epidemics. It is based on reports to the Public Health Service during the past nine years. It is in most instances the median number of cases reported in the corresponding week of the preceeding years. When the reports include several epidemics or when for other reasons the median is unsatisfactory, the epidemic periods are excluded and the estimated expectancy is the mean number of cases reported for the week during nonepidemic years.

If reports have not been received for the full nine years, data are used for as many years as possible, but no year earlier than 1917 is included. In obtaining the estimated expectancy, the figures are smoothed when necessary to avoid abrupt deviations from the usual trend. For some of the diseases given in the table the available data were not sufficient to make it practicable to compute the estimated expectancy.

Division, State, and city	Population July 1, 1925, estimated	Chick- en pox, cases re- ported	Diphtheria		Influenza		Meas- les, cases re- ported	Mumps, cases re- ported	Pneu- monia, deaths re- ported
			Cases esti- mated expec- tancy	Cases re- ported	Cases re- ported	Deaths re- ported			
NEW ENGLAND									
Maine:									
Portland.....	75,333	9	2	1	3	0	7	5	4
New Hampshire:									
Concord.....	22,546	0	0	1	0	0	2	0	1
Manchester.....	83,097	0	2	0	0	0	9	0	4
Vermont:									
Barrre.....	10,608	0	0						
Burlington.....	24,089	0	0	0	0	0	0	0	1
Massachusetts:									
Boston.....	779,620	66	69	24	5	1	163	22	30
Fall River.....	128,993	3	6	3	0	0	74	1	3
Springfield.....	142,065	8	4	0	0	0	76	0	2
Worcester.....	190,757	11	6	12	0	0	116	0	12
Rhode Island:									
Pawtucket.....	69,760	5	2	1	0	0	30	0	6
Providence.....	267,918	0	11	2	0	0	452	0	9
Connecticut:									
Bridgeport.....	(1)	6	9	4	1	1	96	0	6
Hartford.....	160,197	17	8	6	0	1	53	0	8
New Haven.....	178,927	11	5	1	0	0	19	0	7
MIDDLE ATLANTIC									
New York:									
Buffalo.....	538,016	31	19	0	0	2	11	1	12
New York.....	5,873,556	0	226	175	52	16	1,478	30	261
Rochester.....	316,786	19	9	11	0	0	66	0	10
Syracuse.....	182,003	32	9	0	1	0	18	15	3
New Jersey:									
Camden.....	128,642	24	5	4	1	1	20	1	12
Newark.....	452,513	79	21	9	8	0	268	8	19
Trenton.....	132,020	8	6	2	3	4	1	1	6
Pennsylvania:									
Philadelphia.....	1,979,364	214	79	60	1	5	355	17	99
Pittsburgh.....	631,563		22						
Reading.....	112,707	17	5	2	0	0	4	0	6
EAST NORTH CENTRAL									
Ohio:									
Cincinnati.....	409,373	15	11	8	0	2	3	0	21
Cleveland.....	956,455	41	35	4	0	0	1,528	5	28
Columbus.....	279,836	21	4	5	0	2	10	1	11
Toledo.....	267,380	32	9	8	0	1	81	0	11
Indiana:									
Fort Wayne.....	97,846	5	4	1	0	1	1	0	1
Indianapolis.....	368,419	20	14	13	0	0	153	0	10
South Bend.....	80,691	7	1	1	0	0	0	0	1
Terre Haute.....	71,071	2	1	1	0	0	1	0	0

1 No estimate made.

## City reports for week ended January 23, 1926—Continued

Division, State, and city	Population July 1, 1925, estimated	Chicken pox, cases reported	Diphtheria		Influenza		Measles, cases reported	Mumps, cases reported	Pneumonia, deaths reported
			Cases estimated expectancy	Cases reported	Cases reported	Deaths reported			
EAST NORTH CENTRAL—continued									
Illinois:									
Chicago.....	2,995,239	142	121	63	10	6	69	11	58
Peoria.....	81,561	7	1	0	0	0	3	9	2
Springfield.....	63,923	8	2	1	0	0	0	2	2
Michigan:									
Detroit.....	1,245,824	108	79	52	2	0	1,215	10	36
Flint.....	130,316	24	8	1	0	0	16	2	4
Grand Rapids.....	153,688	10	4	1	0	0	11	1	2
Wisconsin:									
Madison.....	46,385	8	0	0	0	0	20	0	0
Milwaukee.....	569,192	134	22	37	1	1	9	21	19
Racine.....	67,707	15	1	1	0	0	0	2	2
Superior.....	39,671	0	1	0	1	0	0	0	0
WEST NORTH CENTRAL									
Minnesota:									
Duluth.....	110,502	19	3	2	0	0	1	0	1
Minneapolis.....	425,435	72	23	20	0	0	7	5	15
St. Paul.....	246,001	32	15	12	0	3	3	2	5
Iowa:									
Davenport.....	(1)	5	1	1	0	—	0	0	—
Des Moines.....	(1)	0	4	0	0	—	0	0	—
Sioux City.....	(1)	6	1	0	0	—	1	0	—
Waterloo.....	36,771	2	1	1	0	—	0	1	—
Missouri:									
Kansas City.....	367,481	51	10	4	1	1	54	3	7
St. Joseph.....	78,342	2	4	4	0	0	0	0	2
St. Louis.....	621,543	40	53	57	1	1	4	3	—
North Dakota:									
Fargo.....	26,403	2	0	0	0	0	3	16	0
Grand Forks.....	14,811	2	1	0	0	—	2	0	—
South Dakota:									
Aberdeen.....	15,036	0	1	0	0	0	0	37	0
Sioux Falls.....	30,127	2	1	0	0	—	1	0	—
Nebraska:									
Lincoln.....	60,941	6	3	2	0	0	6	4	3
Omaha.....	211,768	10	5	1	0	0	2	1	5
Kansas:									
Topeka.....	55,411	24	2	2	0	0	1	2	1
Wichita.....	88,367	22	4	1	0	0	0	0	3
SOUTH ATLANTIC									
Delaware:									
Wilmington.....	122,049	5	2	5	0	0	16	0	3
Maryland:									
Baltimore.....	796,296	157	30	26	371	13	1,408	127	56
Cumberland.....	33,741	2	1	1	0	0	0	0	1
Frederick.....	12,035	1	0	0	0	0	7	0	0
District of Columbia:									
Washington.....	497,906	27	20	21	2	2	26	0	35
Virginia:									
Lynchburg.....	30,395	37	1	1	0	0	2	3	2
Norfolk.....	(1)	—	2	—	—	—	—	—	—
Richmond.....	186,403	6	6	5	0	1	10	2	13
Roanoke.....	58,208	7	2	1	0	1	1	3	3
West Virginia:									
Charleston.....	49,019	0	2	2	0	0	3	0	2
Huntington.....	63,485	0	1	2	0	0	5	0	0
Wheeling.....	56,208	0	2	5	0	1	0	1	3
North Carolina:									
Raleigh.....	36,371	9	1	0	0	0	0	0	0
Wilmington.....	37,661	8	1	0	0	0	0	0	0
Winston-Salem.....	69,031	7	1	1	0	0	107	2	5
South Carolina:									
Charleston.....	73,125	0	1	2	0	1	8	0	0
Columbia.....	41,225	2	1	0	0	0	0	1	0
Greenville.....	27,311	6	0	1	0	0	0	0	0

1 No estimate made.

## City reports for week ended January 23, 1926—Continued

Division, State, and city	Population July 1, 1925, estimated	Chicken pox, cases re-ported	Diphtheria		Influenza		Measles, cases re-ported	Mumps, cases re-ported	Pneumonia, deaths re-ported
			Cases esti-mated expectancy	Cases re-ported	Cases re-ported	Deaths re-ported			
SOUTH ATLANTIC—con.									
Georgia:									
Atlanta.....	( <sup>1</sup> )	6	3	4	47	1	8	0	17
Brunswick.....	16,800	5	0	1	0	0	0	0	0
Savannah.....	93,134	5	1	2	47	1	1	0	7
Florida:									
St. Petersburg.....	26,847	0	1	0	0	0	0	0	1
Tampa.....	94,743	4	1	3	1	0	0	2	3
EAST SOUTH CENTRAL									
Kentucky:									
Covington.....	58,309	0	0	1	0	0	0	0	3
Louisville.....	305,935	4	9	3	4	0	5	0	12
Tennessee:									
Memphis.....	174,533	14	5	5	0	3	0	1	11
Nashville.....	136,220	5	2	2	0	6	46	0	3
Alabama:									
Birmingham.....	205,670	24	3	2	12	1	4	2	13
Mobile.....	65,955	2	1	0	2	1	0	0	2
Montgomery.....	46,481	6	1	1	4	0	0	16	0
WEST SOUTH CENTRAL									
Arkansas:									
Fort Smith.....	31,643	5	0	1	0	-----	1	0	-----
Little Rock.....	74,216	1	1	1	0	0	0	0	4
Louisiana:									
New Orleans.....	414,493	2	15	13	35	14	0	0	17
Shreveport.....	57,857	7	0	2	0	1	0	0	3
Oklahoma:									
Oklahoma City.....	( <sup>1</sup> )	0	2	1	16	1	0	0	3
Tulsa.....	124,478	5	2	0	0	-----	0	0	-----
Texas:									
Dallas.....	194,450	32	7	10	7	3	1	0	17
Galveston.....	48,375	1	1	0	0	0	0	0	2
Houston.....	161,934	2	4	6	0	0	1	1	7
San Antonio.....	198,069	1	2	3	-----	2	0	1	16
MOUNTAIN									
Montana:									
Billings.....	17,971	8	0	0	0	0	0	8	0
Great Falls.....	29,883	15	1	0	0	0	0	25	1
Helena.....	12,037	0	0	0	0	0	2	0	0
Missoula.....	12,668	3	0	5	0	0	0	2	1
Idaho:									
Boise.....	23,012	2	0	0	0	0	0	0	0
Colorado:									
Denver.....	280,911	61	10	4	0	2	6	0	12
Pueblo.....	43,787	9	3	4	0	0	0	0	4
New Mexico:									
Albuquerque.....	21,000	4	0	0	0	0	1	0	1
Utah:									
Salt Lake City.....	130,948	43	3	4	0	0	5	17	12
Nevada:									
Reno.....	12,665	0	0	0	0	0	0	0	0
PACIFIC									
Washington:									
Seattle.....	( <sup>1</sup> )	28	7	1	0	-----	5	84	-----
Spokane.....	108,897	18	4	1	0	-----	0	0	-----
Tacoma.....	104,455	4	3	4	0	0	0	5	4
Oregon:									
Portland.....	282,383	11	0	30	0	0	1	5	11
California:									
Los Angeles.....	( <sup>1</sup> )	39	45	39	40	1	11	6	27
Sacramento.....	72,260	4	3	0	10	2	0	0	7
San Francisco.....	557,530	16	25	7	39	8	8	6	14

<sup>1</sup> No estimate made.

## City reports for week ended January 23, 1926—Continued

Division, State, and city	Scarlet fever		Smallpox			Tuberculosis, deaths reported	Typhoid fever			Whooping cough, cases reported	Deaths, all causes
	Cases, estimated expectancy	Cases reported	Cases, estimated expectancy	Cases reported	Deaths reported		Cases, estimated expectancy	Cases reported	Deaths reported		
NEW ENGLAND											
Maine:											
Portland.....	2	6	0	0	0	1	1	1	0	8	19
New Hampshire:											
Concord.....	0	0	0	0	0	0	0	0	0	0	10
Manchester.....	3	14	0	0	0	2	0	0	0	0	29
Vermont:											
Barre.....	1		0				0				
Burlington.....	1	7	0	0	0	1	0	0	0	0	6
Massachusetts:											
Boston.....	52	86	0	0	0	11	1	3	0	90	237
Fall River.....	3	1	0	0	0	3	0	0	0	6	37
Springfield.....	16	2	0	0	0	2	0	0	0	4	32
Worcester.....	11	12	0	0	0	1	1	0	0	7	59
Rhode Island:											
Pawtucket.....	1	1	0	0	0	0	0	0	0	2	21
Providence.....	8	4	0	0	0	3	1	0	0	7	63
Connecticut:											
Bridgeport.....	6	9	0	0	0	3	0	0	0	0	43
Hartford.....	8	4	0	0	0	3	0	0	0	12	40
New Haven.....	10	2	0	0	0	3	1	0	0	4	48
MIDDLE ATLANTIC											
New York:											
Buffalo.....	23	14	0	0	0	8	1	4	0	36	158
New York.....	221	190	0	0	0	125	11	7	1	91	1,689
Rochester.....	13	31	0	0	0	5	0	3	0	11	97
Syracuse.....	16	5	0	0	0	1	0	0	0	83	47
New Jersey:											
Camden.....	4	17	0	0	0	3	0	1	0	2	39
Newark.....	24	40	0	0	0	14	1	0	0	23	120
Trenton.....	4	6	0	0	0	4	0	0	0	1	54
Pennsylvania:											
Philadelphia.....	60	112	0	0	0	42	4	3	0	35	603
Pittsburgh.....	34		1				1				
Reading.....	2	5	0	0	0	1	0	0	0	9	41
EAST NORTH CENTRAL											
Ohio:											
Cincinnati.....	11	24	1	1	0	8	1	0	0	29	137
Cleveland.....	35	46	2	8	0	14	2	1	0	85	186
Columbus.....	10	19	1	2	0	6	0	1	0	4	88
Toledo.....	18	30	3	0	0	6	1	1	0	5	87
Indiana:											
Fort Wayne.....	5	17	1	0	0	1	0	0	0	1	23
Indianapolis.....	9	17	6	24	0	4	1	0	0	37	108
South Bend.....	4	4	0	11	0	1	0	0	0	1	12
Terre Haute.....	3	5	1	0	0	0	0	0	0	1	24
Illinois:											
Chicago.....	154	126	3	1	0	48	4	3	0	67	694
Peoria.....	7	5	0	0	0	0	0	0	0	6	20
Springfield.....	2	1	0	0	0	0	0	0	0	6	40
Michigan:											
Detroit.....	95	143	4	1	0	28	2	0	0	73	348
Flint.....	16	6	1	0	0	0	0	0	0	30	17
Grand Rapids.....	12	28	0	0	0	0	0	0	0	38	35
Wisconsin:											
Madison.....	3	7	0	0	0	0	0	0	0	4	5
Milwaukee.....	38	24	2	0	0	4	1	0	0	88	117
Racine.....	6	1	1	0	0	0	0	0	0	6	13
Superior.....	2	8	3	0	0	1	0	0	0	3	7
WEST NORTH CENTRAL											
Minnesota:											
Duluth.....	7	26	1	0	0	1	0	0	0	12	20
Minneapolis.....	44	69	17	0	0	7	1	0	0	3	102
St. Paul.....	25	75	11	0	0	7	0	0	0	22	62

1 Pulmonary tuberculosis only.

## City reports for week ended January 23, 1926—Continued

Division, State, and city	Scarlet fever		Smallpox			Tuber- culosis, deaths re- ported	Typhoid fever			Whoop- ing cough, cases re-ported	Deaths, all causes
	Cases, esti- mated expect- ancy	Cases re- ported	Cases, esti- mated expect- ancy	Cases re- ported	Deaths re- ported		Cases, esti- mated expect- ancy	Cases re- ported	Deaths re- ported		
WEST NORTH CENTRAL—CON.											
Iowa:											
Davenport.....	2	2	2	0	-----	-----	0	0	-----	0	-----
Des Moines.....	8	6	3	2	-----	-----	0	0	-----	0	-----
Sioux City.....	2	0	1	4	-----	-----	0	0	-----	0	-----
Waterloo.....	2	2	1	1	-----	-----	0	0	-----	2	-----
Missouri:											
Kansas City.....	15	22	2	0	0	6	0	0	0	16	94
St. Joseph.....	3	0	1	0	0	0	0	0	0	0	29
St. Louis.....	37	112	3	1	0	9	1	1	0	13	249
North Dakota:											
Fargo.....	1	2	1	0	0	0	0	1	0	3	2
Grand Forks.....	1	0	0	0	-----	-----	0	0	-----	0	-----
South Dakota:											
Aberdeen.....	0	0	0	0	0	0	0	0	0	0	-----
Sioux Falls.....	2	2	0	1	0	0	0	0	0	0	-----
Nebraska:											
Lincoln.....	2	4	0	0	0	0	1	0	0	8	18
Omaha.....	5	15	6	9	0	3	0	0	0	9	62
Kansas:											
Topeka.....	2	4	1	0	0	2	0	0	0	0	13
Wichita.....	4	9	0	2	0	0	1	0	0	3	24
SOUTH ATLANTIC											
Delaware:											
Wilmington.....	3	10	0	0	0	0	0	0	0	0	36
Maryland:											
Baltimore.....	40	26	0	0	0	16	2	1	0	53	283
Cumberland.....	0	0	0	0	0	1	0	0	0	1	11
Fredrick.....	0	0	0	0	0	0	0	0	0	0	7
District of Col.: Washington.....	22	27	0	0	0	14	1	0	0	22	181
Virginia:											
Lynchburg.....	1	3	0	0	0	0	0	0	0	4	10
Norfolk.....	2	-----	0	-----	-----	-----	0	-----	-----	-----	-----
Richmond.....	5	12	0	0	0	3	0	0	0	1	67
Roanoke.....	1	0	0	1	0	2	0	0	0	0	18
West Virginia:											
Charleston.....	1	0	0	0	0	0	0	1	0	2	20
Huntington.....	0	3	1	0	0	1	0	0	0	0	10
Wheeling.....	1	1	1	0	0	1	1	0	0	0	25
North Carolina:											
Raleigh.....	1	1	1	1	0	1	0	0	0	0	14
Wilmington.....	0	3	0	0	0	0	0	0	0	3	14
Winston-Salem.....	2	0	2	1	0	2	0	0	0	25	27
South Carolina:											
Charleston.....	1	2	0	0	0	2	0	0	0	0	20
Columbia.....	0	6	1	0	0	0	0	0	0	2	-----
Greenville.....	1	0	0	1	0	1	0	0	0	0	5
Georgia:											
Atlanta.....	3	3	2	1	0	5	0	0	1	0	78
Brunswick.....	0	0	0	0	0	0	0	0	0	0	4
Savannah.....	1	0	1	0	0	4	1	1	0	0	31
Florida:											
St. Petersburg.....	0	0	1	0	0	0	0	0	0	0	13
Tampa.....	1	1	0	25	0	2	1	1	0	1	41
EAST SOUTH CENTRAL											
Kentucky:											
Covington.....	1	2	0	0	0	0	0	0	0	0	19
Louisville.....	5	11	0	0	0	6	1	0	0	3	92
Tennessee:											
Memphis.....	4	12	2	3	0	9	0	1	0	1	70
Nashville.....	3	3	1	0	0	3	0	0	0	0	63
Alabama:											
Birmingham.....	4	6	3	6	0	6	0	0	0	3	73
Mobile.....	0	2	0	0	0	1	0	0	0	0	19
Montgomery.....	1	3	1	0	0	0	1	0	0	1	15

## City reports for week ended January 23, 1926—Continued

Division, State, and city	Scarlet fever		Smallpox			Tuber- culosis, deaths re- ported	Typhoid fever			Whoop- ing cough, cases re- ported	Deaths, all causes
	Cases, esti- mated expect- ancy	Cases re- ported	Cases, esti- mated expect- ancy	Cases re- ported	Deaths re- ported		Cases, esti- mated expect- ancy	Cases re- ported	Deaths re- ported		
WEST SOUTH CENTRAL											
Arkansas:											
Fort Smith.....	1	0	1	0			0	0		0	
Little Rock.....	2	1	1	0	0	2	0	0	1	0	
Louisiana:											
New Orleans.....	4	9	0	4	0	16	3	5	0	2	181
Shreveport.....	0	0	4	2	0	0	0	0	0	0	19
Oklahoma:											
Oklahoma City.....	2	2	2	0	0	2	0	0	0	0	23
Tulsa.....	2	2	1	0			0	0		5	
Texas:											
Dallas.....	4	3	2	0	0	4	0	24	0	0	61
Galveston.....	1	1	0	7	0	1	0	5	0	0	11
Houston.....	2	2	1	10	0	9	1	1	0	0	48
San Antonio.....	0	0	0	0	0	12	0	0	0	0	77
MOUNTAIN											
Montana:											
Billings.....	2	0	1	0	0	0	0	0	0	0	4
Great Falls.....	1	8	2	3	0	0	1	0	0	4	9
Helena.....	0	3	0	0	0	0	0	0	0	0	5
Missoula.....	1	2	0	0	0	0	0	0	0	7	12
Idaho:											
Boise.....	1	5	0	0	0	0	0	0	0	0	8
Colorado:											
Denver.....	11	16	3	0	0	8	0	0	0	50	66
Pueblo.....	2	1	0	0	0	2	1	0	0	0	15
New Mexico:											
Albuquerque.....	0	4	0	0	0	1	0	0	0	4	4
Utah:											
Salt Lake City.....	4	6	4	0	0	1	0	0	0	21	42
Nevada:											
Reno.....	1	0	0	0	0	0	0	0	0	0	1
PACIFIC											
Washington:											
Seattle.....	10	25	3	7			1	0		5	
Spokane.....	4	12	6	0			1	0		0	
Tacoma.....	3	4	2	11	0	1	0	0	0	2	20
Oregon:											
Portland.....	6	14	10	4	0	1	1	0	0	0	
California:											
Los Angeles.....	18	32	3	44	8	27	2	4	0	3	248
Sacramento.....	1	2	1	9	0	1	0	2	0	0	
San Francisco.....	14	20	2	1	0	12	1	0	0	1	226

Division, State, and city	Cerebrospinal meningitis		Lethargic encephalitis		Pellagra		Polio-myelitis (infan- tile paralysis)		
	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases, esti- mated expect- ancy	Cases	Deaths
NEW ENGLAND									
Rhode Island:									
Providence-----	1	0	0	0	0	0	0	0	0
Connecticut:									
Bridgeport-----	0	0	0	0	1	0	0	0	0
Hartford-----	0	0	1	0	0	0	0	0	0
MIDDLE ATLANTIC									
New York:									
Buffalo-----	1	0	1	0	0	0	0	1	0
New York-----	2	3	19	4	0	0	1	2	1
New Jersey:									
Newark-----	0	0	2	0	0	0	1	0	0



## City reports for week ended January 23, 1926—Continued

Division, State, and city	Cerebrospinal meningitis		Lethargic encephalitis		Pellagra		Poliomyelitis (infantile paralysis)		
	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases, estimated expectancy	Cases	Deaths
<b>MIDDLE ATLANTIC—continued</b>									
Pennsylvania:									
Philadelphia.....	0	0	1	0	0	0	0	0	0
<b>EAST NORTH CENTRAL</b>									
Ohio:									
Cleveland.....	0	0	0	1	0	0	0	1	0
Illinois:									
Chicago.....	1	1	0	0	0	0	0	0	0
Wisconsin:									
Milwaukee.....	0	0	1	1	0	0	0	0	0
<b>WEST NORTH CENTRAL</b>									
Minnesota:									
Minneapolis.....	0	0	0	1	0	0	0	1	1
Nebraska:									
Omaha.....	1	1	0	0	0	0	0	0	0
<b>SOUTH ATLANTIC</b>									
Maryland:									
Baltimore.....	0	1	0	0	0	0	0	0	0
North Carolina:									
Raleigh.....	0	0	0	0	0	1	0	0	0
South Carolina:									
Charleston.....	0	0	0	0	0	1	0	0	0
Georgia:									
Atlanta.....	1	1	0	0	0	1	0	0	0
Savannah.....	1	0	0	0	0	0	0	0	0
<b>EAST SOUTH CENTRAL</b>									
Tennessee:									
Memphis.....	0	1	0	0	0	0	0	0	
<b>WEST SOUTH CENTRAL</b>									
Arkansas:									
Little Rock.....	1	0	0	0	0	0	0	0	0
Louisiana:									
New Orleans.....	0	0	0	0	1	0	0	0	0
Oklahoma:									
Oklahoma City.....	0	0	0	1	0	0	0	0	0
Texas:									
San Antonio.....	0	0	0	0	0	1	0	0	0
<b>PACIFIC</b>									
Oregon:									
Portland.....	1	0	0	0	0	0	0	0	0
California:									
Los Angeles.....	3	5	0	0	0	0	1	0	0
San Francisco.....	2	1	0	0	0	0	0	0	

The following table gives the rates per 100,000 population for 103 cities for the four-week period ended January 23, 1926, compared with those for a like period ended January 24, 1925. The population figures used in computing the rates are approximate estimates as of July 1, 1925 and 1926, respectively, authoritative figures for many of the cities not being available. The 103 cities reporting cases had an estimated aggregate population of nearly 30,000,000 in 1925 and nearly 30,500,000 in 1926. The 96 cities reporting deaths had more than 29,250,000 estimated population in 1925 and more than 29,750,000 in 1926. The number of cities included in each group and the estimated aggregate populations are shown in a separate table below.

Summary of weekly reports from cities, December 27, 1925, to January 23, 1926—  
Annual rates per 100,000 population—Compared with rates for the corresponding  
period of 1924-25<sup>1</sup>

## DIPHTHERIA CASE RATES.

	Week ended—							
	Jan. 3, 1925	Jan. 2, 1926	Jan. 10, 1925	Jan. 9, 1926	Jan. 17, 1925	Jan. 16, 1926	Jan. 24, 1925	Jan. 23, 1926
103 cities.....	149	129	145	170	167	145	159	<sup>2</sup> 143
New England.....	249	189	247	139	173	144	165	<sup>3</sup> 131
Middle Atlantic.....	140	124	130	182	187	151	174	<sup>4</sup> 139
East North Central.....	141	129	122	151	132	153	121	131
West North Central.....	171	154	139	283	247	253	193	206
South Atlantic.....	138	126	161	178	115	141	144	<sup>5</sup> 162
East South Central.....	84	109	110	52	84	67	74	73
West South Central.....	141	146	137	189	185	120	154	155
Mountain.....	102	109	231	182	148	127	231	155
Pacific.....	160	124	185	97	196	81	213	140

## MEASLES CASE RATES

	150	601	207	1,146	188	973	204	<sup>2</sup> 1,308
103 cities.....	150	601	207	1,146	188	973	204	<sup>2</sup> 1,308
New England.....	367	2,373	381	3,094	421	2,867	479	<sup>3</sup> 2,583
Middle Atlantic.....	129	550	168	995	157	815	186	<sup>4</sup> 1,145
East North Central.....	277	735	391	1,761	327	1,302	352	2,068
West North Central.....	10	59	18	148	12	127	26	156
South Atlantic.....	50	460	79	1,289	42	1,356	36	<sup>5</sup> 2,638
East South Central.....	16	104	26	52	42	239	68	285
West South Central.....	9	0	4	0	22	22	13	13
Mountain.....	111	82	120	55	259	91	240	118
Pacific.....	75	46	185	65	152	51	52	65

## SCARLET FEVER CASE RATES

	284	221	307	270	344	285	356	<sup>2</sup> 290
103 cities.....	284	221	307	270	344	285	356	<sup>2</sup> 290
New England.....	587	300	637	295	542	381	575	<sup>3</sup> 3,092
Middle Atlantic.....	285	166	323	210	292	237	325	<sup>4</sup> 223
East North Central.....	227	213	166	330	359	321	311	324
West North Central.....	549	493	733	580	731	518	780	669
South Atlantic.....	192	137	148	158	216	196	190	<sup>5</sup> 190
East South Central.....	158	99	210	119	168	140	168	202
West South Central.....	79	120	141	112	110	90	185	69
Mountain.....	157	216	370	237	514	319	296	373
Pacific.....	155	205	180	243	171	207	210	276

## SMALLPOX CASE RATES

	41	23	55	33	56	47	68	<sup>2</sup> 36
103 cities.....	41	23	55	33	56	47	68	<sup>2</sup> 36
New England.....	0	0	0	0	0	0	0	0
Middle Atlantic.....	3	1	3	0	10	2	6	6
East North Central.....	25	22	38	48	37	37	45	33
West North Central.....	125	18	213	65	187	51	175	36
South Atlantic.....	36	24	29	43	58	68	35	<sup>5</sup> 60
East South Central.....	341	73	362	47	200	57	620	47
West South Central.....	31	22	62	52	31	146	31	99
Mountain.....	46	36	28	36	55	18	92	27
Pacific.....	108	148	141	111	202	286	199	194

<sup>1</sup> The figures given in this table are rates per 100,000 population, annual basis, and not the number of cases reported. Populations used are estimated as of July 1, 1925 and 1926, respectively.

<sup>2</sup> Barre, Vt., Pittsburgh, Pa., and Norfolk, Va., not included.

<sup>3</sup> Barre, Vt., not included.

<sup>4</sup> Pittsburgh, Pa., not included.

<sup>5</sup> Norfolk, Va., not included.

Summary of weekly reports from cities, December 27, 1925, to January 23, 1926—  
Annual rates per 100,000 population—Compared with rates for the corresponding  
period of 1924-25—Continued

## TYPHOID FEVER CASE RATES

	Week ended—							
	Jan. 3, 1925	Jan. 2, 1926	Jan. 10, 1925	Jan. 9, 1926	Jan. 17, 1925	Jan. 16, 1926	Jan. 21, 1925	Jan. 23, 1926
103 cities.....	36	10	32	13	20	11	17	<sup>2</sup> 13
New England.....	24	7	14	31	21	2	10	<sup>3</sup> 9
Middle Atlantic.....	58	7	49	14	21	16	20	<sup>4</sup> 10
East North Central.....	26	6	13	11	22	8	10	3
West North Central.....	4	6	6	2	10	4	6	4
South Atlantic.....	38	11	52	9	19	8	12	<sup>6</sup> 8
East South Central.....	37	31	47	16	16	16	26	5
West South Central.....	35	47	66	22	68	13	40	151
Mountain.....	0	9	9	9	0	9	46	9
Pacific.....	11	8	25	11	6	13	14	16

## INFLUENZA DEATH RATES

	18	15	20	21	21	23	21	<sup>2</sup> 20
96 cities.....	2	12	17	0	26	14	10	<sup>3</sup> 7
New England.....	21	10	20	18	18	10	20	<sup>4</sup> 15
Middle Atlantic.....	9	8	15	12	14	11	17	8
East North Central.....	8	15	13	15	2	19	10	10
West North Central.....	25	19	33	15	42	23	21	<sup>4</sup> 42
South Atlantic.....	58	31	42	53	42	58	58	57
East South Central.....	48	43	39	47	32	80	87	94
West South Central.....	37	27	18	46	28	64	9	18
Mountain.....	11	39	18	57	11	40	11	39
Pacific.....								

## PNEUMONIA DEATH RATES

	195	184	185	220	206	211	202	<sup>2</sup> 198
96 cities.....	168	210	117	246	151	208	208	<sup>3</sup> 209
New England.....	225	186	227	229	259	236	233	<sup>4</sup> 227
Middle Atlantic.....	155	142	143	176	143	153	132	139
East North Central.....	91	117	87	140	104	125	117	81
West North Central.....	232	261	232	289	271	276	242	<sup>3</sup> 300
South Atlantic.....	278	250	268	332	173	285	294	228
East South Central.....	324	312	247	335	425	354	343	312
West South Central.....	222	264	232	127	240	326	314	273
Mountain.....	167	135	164	220	145	167	185	185
Pacific.....								

<sup>2</sup> Barre, Vt., Pittsburgh, Pa., and Norfolk, Va., not included.

<sup>4</sup> Pittsburgh, Pa., not included.

<sup>3</sup> Barre, Vt., not included.

<sup>5</sup> Norfolk, Va., not included.

Number of cities included in summary of weekly reports, and aggregate population of  
cities in each group, approximated as of July 1, 1925 and 1926, respectively.

Group of cities	Number of cities reporting cases	Number of cities reporting deaths	Aggregate population of cities reporting cases		Aggregate population of cities reporting deaths	
			1925	1926	1925	1926
Total.....	103	96	20,944,906	30,473,129	29,251,658	23,764,201
New England.....	12	12	2,176,124	2,206,124	2,176,124	2,206,124
Middle Atlantic.....	10	10	10,340,970	10,476,070	10,340,970	10,476,070
East North Central.....	16	16	7,481,656	7,657,436	7,481,656	7,657,436
West North Central.....	14	11	2,594,902	2,634,632	2,461,880	2,499,038
South Atlantic.....	21	21	2,716,070	2,776,070	2,716,070	2,776,070
East South Central.....	7	7	993,103	1,004,953	993,103	1,004,953
West South Central.....	8	6	1,184,057	1,212,057	1,078,198	1,103,695
Mountain.....	9	9	563,912	572,773	563,912	572,773
Pacific.....	6	4	1,838,142	1,934,084	1,434,245	1,466,144

# FOREIGN AND INSULAR

## THE FAR EAST

*Report for week ended January 9, 1926.*—The following report for the week ended January 9, 1926, was transmitted by the Far Eastern Bureau of the health section of the League of Nations' secretariat, located at Singapore, to the headquarters at Geneva:

Port	Plague		Cholera		Smallpox	
	Cases	Deaths	Cases	Deaths	Cases	Deaths
Calcutta.....	0	0	23	18	10	10
Bombay.....	2	0	0	15	9	9
Madras.....	0	0	16	7	4	4
Rangoon.....	3	0	0	7	0	0
Karachi.....	0	0	0	3	2	2
Negapatam.....	0	0	4	0	0	0
Colombo.....	0	0	0	2	0	0
Basra.....	0	0	0	8	5	5
Singapore.....	2	2	0	0	0	0
Port Swettenham.....	0	0	0	0	0	0
Penang.....	0	0	0	0	0	0
Batavia.....	0	0	0	0	0	0
Soerabaya.....	0	0	0	2	2	2
Samarang.....	0	0	0	0	0	0
Belawan Deli.....	0	0	0	0	0	0
Padang (Sumatra).....	0	0	0	0	0	0
Sabang (Rhio).....	0	0	0	0	0	0
Macassar.....	1	1	0	0	0	0
Pontianak (Borneo).....	0	0	0	0	0	0
Sandakan (North Borneo).....	0	0	0	0	0	0
Manila.....	0	0	1	1	0	0
Zamboanga.....	0	0	0	0	0	0
Bangkok.....	1	0	36	30	2	1
Saigon and Cholon.....	0	0	0	1	0	0
Hong Kong.....	0	0	0	0	1	0
Shanghai.....	0	0	0	0	18	18
Amoy.....	0	0	0	0	0	0
Nagasaki.....	0	0	0	0	0	0
Yokohama.....	0	0	0	0	0	0
Simonoseki.....	0	0	0	0	0	0
Moji.....	0	0	0	0	0	0
Kobe.....	0	0	0	0	0	0
Osaka.....	0	0	0	0	0	0
Keelung.....	0	0	0	0	0	0
Fusan.....	0	0	0	0	0	0
Dairen.....	0	0	0	0	9	9
Adelaide.....	0	0	0	0	0	0
Brisbane.....	0	0	0	0	0	0
Fremantle.....	0	0	0	0	0	0
Melbourne.....	0	0	0	0	0	0
Sydney.....	0	0	0	0	0	0
Rockhampton.....	0	0	0	0	0	0
Townsville.....	0	0	0	0	0	0
Port Darwin.....	0	0	0	0	0	0
Broome.....	0	0	0	0	0	0
Port Moresby.....	0	0	0	0	0	0
New Zealand.....	0	0	0	0	0	0
Honolulu.....	0	0	0	0	0	0
Suez.....	0	0	0	0	0	0
Alexandria.....	0	0	0	0	0	0
Port Said.....	0	0	0	0	0	0
Mombasa (Kenya).....	0	0	0	0	0	0
Massowah.....	0	0	0	0	0	0
Djibuti.....	0	0	0	0	0	0
Mozambique.....	0	0	0	0	0	0
Lourenco-Marques.....	0	0	0	0	0	0
Durban.....	0	0	0	0	0	0
East London.....	0	0	0	0	0	0
Port Elizabeth.....	0	0	0	0	0	0
Cape Town.....	0	0	0	0	0	0
Port Louis (Mauritius).....	0	0	0	0	0	0
Seychelles.....	0	0	0	0	0	0

## ARGENTINA

*Plague in interior Provinces.*—During the week ended January 30, 1926, six cases of plague were reported in the interior Provinces of Salta and Santa Fe, Argentina. The foci were isolated, and the ports were said to be free from the disease.

## BRAZIL

*Malaria mortality—Para.*—During the week ended January 9, 1926, six deaths from malaria were reported at Para, Brazil.

## CANADA

*Communicable diseases—Week ended January 23, 1926.*—The Canadian Ministry of Health reports certain communicable diseases in seven Provinces of Canada for the week ended January 23, 1926, as follows:

	Nova Scotia	New Brunswick	Quebec	Ontario	Manitoba	Saskatchewan	Alberta	Total
Cerebrospinal fever.....						1		1
Poliomyelitis.....					1			1
Smallpox.....				31	3	10	15	59
Typhoid fever.....		3	3	11	1	48		66

## CZECHOSLOVAKIA

*Communicable diseases—July–September, 1925.*—During the period July 1 to September 30, 1925, communicable diseases were notified in Czechoslovakia as follows:

Disease	Cases	Deaths	Provinces showing greatest number of cases and deaths
Anthrax.....	23		Slovakia: Cases, 11.
Cerebrospinal meningitis.....	25	10	Bohemia: Cases, 8; deaths, 4.
Diphtheria.....	805	56	Bohemia: Cases, 422; deaths, 37.
Dysentery.....	400	48	Slovakia: Cases, 181; deaths, 23.
Malaria.....	76		Russia: Cases, 70.
Paratyphoid fever A.....	2		Bohemia.
Paratyphoid fever B.....	23		Bohemia.
Rabies.....	5		Bohemia.
Scarlet fever.....	2,566	60	Bohemia: Cases, 1,614; deaths, 6.
Trachoma.....	760		Slovakia: Cases, 371.
Typhoid fever.....	2,295	137	Moravia: Cases, 754; deaths, 51.
Typhus fever.....	3		Russia.

Population, 13,611,349.

## ECUADOR

*Plague—January 1–15, 1926.*—During the period January 1 to 15, 1926, plague was reported in Ecuador as follows: Eloy Alfaro, one case; Guayaquil, cases, 15; deaths, 5; Recreo (country estate), one case.

*Plague-infected rats—Guayaquil.*—During the period under report, of 11,864 rats taken, 80 rats were found plague infected.

## IRELAND

*Typhus fever—Cork—Galway.*—Under date of January 8, 1926, five cases of typhus fever were reported present in hospital at Cork, Ireland. Two cases were reported discharged from hospital during the previous week. The localities in which the cases occurred were not stated. Previous occurrence of typhus fever in Ireland has been reported as follows: October 17, 1925—one case in County Galway; November 14, 1925—one case at Dunmanway, County Cork.

## MEXICO

*Influenza mortality—Vera Cruz—January 10-16, 1926.*—During the week ended January 16, 1926, 10 deaths from influenza were reported at Vera Cruz, Mexico, in a total of 69 deaths from all causes reported. Population, 1922—57,000.

## CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER

The reports contained in the following tables must not be considered as complete or final as regards either the lists of countries included or the figures for the particular countries for which reports are given.

Reports Received During Week Ended February 12, 1926 <sup>1</sup>

## CHOLERA

Place	Date	Cases	Deaths	Remarks
India.....				Nov. 22-28, 1925: Cases, 2,259; deaths, 1,385.
Siam: Bangkok.....	Dec. 13-19.....	48	20	

## PLAGUE

Argentina.....				Jan. 24-30, 1926: Cases, 6. Occurring in interior Provinces of Salta and Santa Fe.
Ecuador:				
Eloy Alfaro.....	Jan 1-15.....	1		Rats taken, 11,864; found infected, 80.
Guayaquil.....	do.....	15	5	
Recreo (country estate).....	do.....	1		
India.....				Nov. 22-23, 1925: Cases, 1,480; deaths, 1,048.
Iraq:				
Bagdad.....	Dec. 13-25.....	4	1	
Java:				Province.
Batavia.....	Dec. 5-18.....	63	60	
Cheribon.....	Nov. 15-23.....		59	
Pekalongan.....	Nov. 8-28.....		80	
Soerabaya.....	Nov. 29-Dec. 5.....	1	1	
Tegal.....	Nov. 8-28.....		14	
Straits Settlements:				
Singapore.....	Nov. 22-Dec. 5.....	3	3	

<sup>1</sup> From medical officers of the Public Health Service, American consuls, and other sources.

# **CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued**

## **Reports Received During Week Ended February 12, 1926—Continued**

### **SMALLPOX**

Place	Date	Cases	Deaths	Remarks
Brazil				
Rio de Janeiro.....	Dec. 6-26.....	65	26	
British South Africa:				
Southern Rhodesia.....	Dec. 17-23.....	1		
Canada				Jan. 17-23, 1925: Cases, 59.
Alberta.....	Jan. 17-23.....	15		
Manitoba.....	do.....	3		
Winnipeg.....	Jan. 24-30.....	1		
Ontario.....	Jan. 17-23.....	31		
Toronto.....	do.....	1		
Saskatchewan.....	do.....	10		
China:				
Chungking.....	Dec. 13-19.....			Present.
Foochow.....	Dec. 6-26.....			Do.
Manchuria—				
Dairen.....	Dec. 7-20.....	27	5	
Shanghai.....	Dec. 20-26.....	7	6	Cases, foreign; deaths, native and foreign
Do.....	Dec. 27-Jan. 2.....	7	5	Do
Tientsin.....	Dec. 13-19.....	1		Reported by British municipality.
Egypt:				
Alexandria.....	Dec. 17-31.....	4	1	
Great Britain:				
England and Wales—				
Sheffield.....	Dec. 20-26.....	3		
Do.....	Dec. 27-Jan. 9.....	2		
India:				Nov. 22-23, 1925: Cases, 1,892; deaths, 431.
Bombay.....	Dec. 13-19.....	3	2	
Iraq:				
Bagdad.....	Dec. 13-26.....	6	2	
Java:				
Batavia.....	Dec. 12-18.....	1		Province. City, Nov. 15-21, 1925: 1 case.
Cheerbon.....	Nov. 8-14.....	1		
Pekalongan.....	Oct. 25-31.....	1		
Soerabaya.....	Nov. 29-Dec. 5.....	73	14	
Mexico:				
Aguascalientes.....	Jan. 17-23.....		1	
Guadalajara.....	Jan. 19-25.....		2	
San Luis Potosi.....	Jan. 17-23.....		3	
Persia:				
Teheran.....	Aug. 23-Sept. 22.....		135	
Portugal:				
Lisbon.....	Dec. 7-27.....		20	
Switzerland:				
Zurich.....	Dec. 27-Jan. 3.....	1		

### **TYPHUS FEVER**

Chile:				
Valparaiso.....	Dec. 27-Jan. 2.....		1	
China:				
Manchuria—				
Harbin.....	Dec. 17-23.....	1		
Ireland:				
Cork County—				
Cork.....	Dec. 20-Jan. 1.....	2		Discharged from hospital.
Do.....	Jan. 2-8.....	5		In hospital. Places of origin not stated.
Dunmanway.....	Nov. 14.....	1		
Galway County.....	Oct. 17.....	1		
Palestine:				
Gaza.....	Dec. 13.....	1		

# **CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued**

**Reports Received from December 26, 1925, to February 5, 1926 <sup>1</sup>**

## **CHOLERA**

Place	Date	Cases	Deaths	Remarks
India				Oct. 18-Nov. 21, 1925: Cases, 8,732; deaths, 5,113.
Calcutta	Nov. 1-28	101	89	
Do.	Dec. 6-12	23	30	
Madras	Nov. 15-Dec. 26	146	57	
Rangoon	Nov. 8-Dec. 5	4	4	
Indo-China				September, 1925: Cases, 9; deaths, 5. September, 1924: Cases, 7; deaths, 4. (European cases, 2.)
Province—				September, 1924: None.
Annam	Sept. 1-30	2	2	
Cochin China	do.	5	3	
Tonkin	do.	2		September, 1924: 1 case; 1 death.
Japan	Aug. 30-Oct. 17	409		September, 1924: None.
Philippine Islands:				
Manila	Nov. 9-Dec. 5	8	6	
Do.	Dec. 14-26	5	2	
Provinces—				
Bataan	Nov. 30-Dec. 13	10	8	
Bulacan	Oct. 18-Nov. 7	92	64	
Do.	Nov. 23-Dec. 13	179	69	
Laguna	do.	16	13	
Nueva Ecija	do.	6	2	
Pampanga	Nov. 1-7	1	1	
Do.	Nov. 23-Dec. 13	80	56	
Rizal	Sept. 27-Nov. 21	75	21	
Romblon	Dec. 7-13	23	12	
Russia	May-June	7		
Do.	July-Aug.	4		
Siam:				
Bangkok	Oct. 4-Nov. 14	108	68	
Do.	Nov. 22-Dec. 12	161	88	
On vessel:				
Steamship	Oct. 3	9		Arrived at Bangkok, Siam; 9 cases in coolie passengers.

## **PLAGUE**

Brazil:				
Bahia	Nov. 8-14	2		
Santos	Dec. 8-21		2	
British East Africa:				
Kenya				
Kisumu	Nov. 22-Dec. 5	1	2	
Uganda Protectorate	September	103	85	
Canary Islands:				
La Laguna	Dec. 24	3	2	
Las Palmas	do.	1		
Santa Cruz de Tenerife	Dec. 19-27	3		
Ceylon:				
Colombo	Nov. 15-28	3	3	
Do.	Nov. 29-Dec. 5			1 plague rodent.
China:				
Nanking	Nov. 15-Jan. 2			Prevalent.
Ecuador:				
Guayaquil	Nov. 1-Dec. 31	31	12	Rats taken, Nov. 1-Dec. 31, 1925: 49,370; rats found infected, 281.
Egypt				Jan. 1-Dec. 9, 1925: Cases, 138; Corresponding period, 1924: Cases, 365.
Beni Suef	Nov. 18	1	1	
Fayoum Province	Dec. 3-9	1	1	
Greece:				
Athens	Nov. 1-30	18	4	Including Piræus.
Patras	Nov. 13-Dec. 12	4	1	
India				Oct. 18-Nov. 21, 1925: Cases, 5,940; deaths, 3,943.
Bombay	Dec. 6-12	1	1	
Calcutta	do.	1	1	
Karachi	Nov. 1-Dec. 19	4	3	
Madras	Oct. 25-Nov. 7	75	41	
Do.	Nov. 15-21	35	22	
Rangoon	Oct. 25-Dec. 12	19	12	
Indo-China				September, 1925: Cases, 17; deaths, 16. September, 1924: Cases, fatal, 12.
Province—				September, 1924: Cases, 9; deaths, 0.
Cambodia	Sept. 1-30	11	11	
Cochin China	do.	6	5	September, 1924: 1 case; 1 death.

<sup>1</sup> From medical officers of the Public Health Service. American consuls and other sources.



# **CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued**

**Reports Received from December 26, 1925, to February 5, 1926—Continued**

## **PLAGUE—Continued**

Place	Date	Cases	Deaths	Remarks
<b>Java:</b>				
Batavia.....	Oct. 21-Nov. 6.....	94	89	Province.
Do.....	Nov. 14-Dec. 4.....	169	159	
Cherbon.....	Sept. 27-Oct. 17.....		106	
Djokjakarta.....	Oct. 20-Nov. 9.....			Epidemic in one locality.
Kediri.....	Dec. 7.....			Do.
Pekalongan.....	Sept. 27-Oct. 17.....		42	
Rembang.....	Oct. 20.....			Do.
Socrabaya.....	Oct. 11-Nov. 28.....	36	36	
Tegal.....	Sept. 27-Oct. 17.....	6	6	
<b>Madagascar:</b>				
Province—				
Ilasy.....	Sept. 16-Oct. 31.....	20	20	
Moramanga.....	do.....	17	17	
Tananarive.....	do.....	174	159	
Town—				
Fort Dauphin.....	Sept. 16-Oct. 15.....	5	2	
Tamatave (port).....	Sept. 16-30.....	3	2	
Do.....	Oct. 16-31.....	4	4	
Tananarive.....	Sept. 16-30.....	2	2	
Mauritius Island.....	Sept. 20-Nov. 14.....	0	9	
Nigeria.....	August-September.....	349	267	
<b>Peru:</b>				
Huacho.....	Jan. 26.....	15		Port 60 miles north of Callao.
Russia.....	May-June.....	67		
Do.....	July-August.....	139		
Senegal.....	September-October.....	45	25	
Siam.....	Aug. 23-Oct. 13.....	50	40	
Bangkok.....	Nov. 15-28.....	3	3	
<b>Straits Settlements:</b>				
Singapore.....	Nov. 1-21.....	5	5	
<b>Syria:</b>				
Beirut.....	Nov. 11-20.....	1		
<b>Union of South Africa</b>				
Cape Province—				
Middleburg district.....	Dec. 6-12.....	1		European.
Steynsburg district.....	Nov. 15-21.....	1		Native. On farm.
Orange Free State—				
Boshof district.....	Nov. 29-Dec. 5.....	1	1	In native.
Bothaville district.....	Dec. 6-12.....	1	1	Native. On farm.

## **SMALLPOX**

<b>Algeria:</b>				
Algiers.....	Nov. 21-Dec. 20.....	109		
<b>Arabia:</b>				
Aden.....	Nov. 20-Dec. 5.....	1		Imported.
<b>Argentina:</b>				
Rosario.....	October.....		1	
<b>Australia:</b>				
Queensland—				
Brisbane.....	Dec. 9-15.....	1		
<b>Brazil:</b>				
Rio de Janeiro.....	Nov. 1-28.....	134	72	
<b>British East Africa:</b>				
Kenya—				
Mombasa.....	Nov. 15-Dec. 12.....	14	5	
Uganda Protectorate.....	Sept. 1-30.....	7	4	
<b>British South Africa:</b>				
Southern Rhodesia.....	Nov. 13-Dec. 10.....	2		
<b>Canada:</b>				
Alberta.....	Jan. 10-16.....	2		Sept. 13-Jan. 2: In 7 Provinces,
Calgary.....	Dec. 13-19.....	1		186 cases.
				From Drumheller, vicinity of
				Calgary.
<b>British Columbia—</b>				
Vancouver.....	Jan. 4-10.....	1		
Manitoba.....	Jan. 3-9.....	14		
Winnipeg.....	do.....	2		
Do.....	Jan. 3-23.....	7		
<b>New Brunswick—</b>				
Northumberland.....	Dec. 6-13.....	1		

# **CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued**

**Reports Received from December 26, 1925, to February 5, 1926—Continued**

## **SMALLPOX—Continued**

Place	Date	Cases	Deaths	Remarks
Canada—Continued.				
Ontario.....				December, 1925: Cases, 32; deaths, 1. Occurring in 15 localities. January 3-16, 1926: Cases, 35.
Ottawa.....	Dec. 6-12.....	2		
Do.....	Jan. 3-9.....	1		
Toronto.....	Dec. 27-Jan. 2.....	1		
Do.....	Jan. 3-16.....	20		
Saskatchewan.....	do.....	5		
Moose Jaw.....	do.....	2		
Ceylon.				
Colombo.....	Dec. 6-12.....	1		Port case.
China:				
Amoy.....	Oct. 25-Dec. 19.....		1	
Antung.....	Dec. 7-20.....	2		
Chungking.....	Nov. 15-Dec. 26.....			Present.
Foochow.....	Nov. 1-21.....			Do.
Hankow.....	Nov. 14-Dec. 26.....	4		
Hongkong.....	Nov. 22-28.....	3		
Manchuria—				
An-shan.....	Dec. 6-12.....	1		
Dairen.....	Oct. 19-Dec. 6.....	40	10	
Mukden.....	Oct. 24-Nov. 15.....	1		
Tieh-lung.....	do.....	2		
Nanking.....	Nov. 21-Dec. 26.....			Do.
Do.....	Dec. 27-Jan. 2.....			Do.
Shanghai.....	Oct. 25-Dec. 19.....	23	25	
Swatow.....	Nov. 22-Dec. 5.....			Do.
Tientsin.....	Nov. 1-7.....	1		
Egypt:				
Alexandria.....	Dec. 3-9.....	1	1	
France.....				September, October, 1925: Cases, 91.
Gold Coast.....	September, 1925.....	14	4	
Great Britain:				
England and Wales.....	Nov. 15-Dec. 26.....	790		
Do.....	Dec. 27-Jan. 2.....	203		
I Hull.....	Dec. 27-Jan. 9.....	14		
Newcastle-on-Tyne.....	Nov. 29-Dec. 19.....	6		
Do.....	Dec. 27-Jan. 2.....	1		
Nottingham.....	Dec. 13-26.....	5		
Sheffield.....	Nov. 22-Dec. 12.....	7		
Greece.....				Oct. 1-31, 1925: Cases, 16.
Athens.....	Nov. 1-30.....	17	1	
India.....				Oct. 18-Nov. 21, 1925: Cases, 6,935; deaths, 1,484.
Bombay.....	Nov. 8-Dec. 12.....	10	14	
Calcutta.....	Nov. 29-Dec. 12.....	29	18	
Karachi.....	Nov. 1-21.....	23		
Do.....	Nov. 29-Dec. 5.....	4	2	
Do.....	Dec. 13-19.....	3		
Madras.....	Nov. 15-Dec. 26.....	17	5	
Rangoon.....	Oct. 25-Nov. 28.....	3		
Do.....	Dec. 6-12.....	2	1	
Indo-China.....				September, 1925: Cases, 122; deaths, 33. September, 1924: Cases, 78; deaths, 22.
Province—				
Annam.....	Sept. 1-30.....	47	9	September, 1924: Cases, 8; deaths, 2.
Cambodia.....	do.....	29	8	September, 1924: Cases, 16; deaths, 1.
Cochin China.....	do.....	28	16	September, 1924: Cases, 43; deaths, 19.
Tonkin.....	do.....	18		September, 1924: Cases, 11.
Iraq.....				Sept. 6-Oct. 17, 1925: Cases, 81; deaths, 40.
Bagdad.....	Nov. 1-14.....	4	4	
Do.....	Nov. 22-Dec. 5.....	9	9	
Italy.....				Aug. 2-Oct. 31, 1925: Cases, 38.
Rome.....	Oct. 12-25.....	1		
Jamaica.....				Nov. 27-Dec. 24, 1925: Cases, 52. Reported as abstrum.
Kingston.....	Nov. 27-Dec. 26.....	43		
Japan:				
Taiwan.....	Nov. 11-Dec. 10.....	3		
Yokohama.....	Dec. 14-20.....	1		
Java:				
Batavia.....	Oct. 24-30.....	1		
Do.....	Nov. 14-27.....	5		
Kraksaan.....	Oct. 11-17.....	11		Province and city.
Malang.....	do.....	2		
North Bantam.....	Oct. 4-17.....	4		

# **CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued**

**Reports Received from December 26, 1925, to February 5, 1926—Continued**

## **SMALLPOX—Continued**

Place	Date	Cases	Deaths	Remarks
Java—Continued.				
Probolinggo.....	Oct. 11-17.....	1	—	
Soerabaya.....	Oct. 11-Nov. 28.....	394	54	
South Bantam.....	Oct. 11-17.....	1	—	
Tegal.....	Oct. 4-10.....	9	1	
Malta.....	November.....	14	—	
Mexico.....				July-September, 1925: Deaths, 1,157.
Aguascalientes.....	Dec. 13-Jan. 2.....	4	3	
Do.....	Jan. 6-16.....	—	3	
Durango.....	Dec. 1-31.....	—	1	
Guadalajara.....	Dec. 29-Jan. 18.....	—	4	
Mexico City.....	Nov. 28-Dec. 5.....	1	—	Including municipalities in Federal district.
Do.....	Jan. 3-9.....	1	—	
Torreon.....	Nov. 1-Dec. 31.....	—	51	
Nigeria.....	August-September.....	108	1	
Persia:				
Teheran.....	July 23-Aug. 23.....	—	68	
Peru:				
Arequipa.....	Oct. 1-31.....	—	1	
Poland.....				Nov. 1-7, 1925: Cases, 8.
Portugal:				
Lisbon.....	Oct. 4-31.....	124	—	
Do.....	Nov. 16-Dec. 6.....	—	31	
Do.....	Nov. 14-Dec. 19.....	179	—	
Oporto.....	Nov. 22-Dec. 19.....	2	3	
Do.....	Dec. 27-Jan. 2.....	1	—	
Russia.....				May-June, 1925: Cases, 2,333. Later than previously published reports.
Do.....	July-August.....	760	—	
Siam.....				July 12-Sept. 5, 1925: Cases, 21; deaths, 6.
Spain:				
Madrid.....	Year 1925.....	—	18	
Malaga.....	Nov. 29-Dec. 5.....	—	2	
Do.....	Dec. 27-Jan. 2.....	—	1	
Valencia.....	Dec. 20-26.....	1	—	
Do.....	Dec. 27-Jan. 2.....	1	—	
Switzerland.....				June 28-Nov. 21, 1925: Cases, 62.
Lucerne.....	Oct. 1-Nov. 30.....	8	—	
Tunisia:				
Tunis.....	Nov. 21-30.....	2	—	
Do.....	Dec. 11-31.....	10	1	
Do.....	Jan. 1-10.....	1	—	
Union of South Africa:				
Transvaal—				
Pretoria District.....	Dec. 6-12.....	—	—	Outbreaks. In native compound.

## **TYPHUS FEVER**

Place	Date	Cases	Deaths	Remarks
Algeria:				
Algiers.....	October-Dec. 20.....	4	—	
Argentina:				
Rosario.....	Oct. 13-1.....	1	—	
Bulgaria.....	September-October.....	26	2	
Chile:				
Valparaiso.....	Nov. 29-Dec. 5.....	—	1	
China:				
Antung.....	Nov. 29-Dec. 27.....	5	1	
Czechoslovakia.....	October, 1925.....	8	—	
Egypt:				
Port Said.....	Nov. 19-25.....	1	—	
Finland.....				October, 1925: One case.
France.....	July-October.....	4	—	
Germany.....	Oct. 25-31.....	1	—	
Greece:				
Athens.....	Nov. 1-30.....	11	2	
Latvia.....	October, 1925.....	2	—	
Lithuania.....				September-October, 1925: Cases, 9; deaths, 1.

# CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued

Reports Received from December 26, 1925, to February 5, 1926—Continued

## TYPHUS FEVER—Continued

Place	Date	Cases	Deaths	Remarks
Mexico.....				July-September, 1925: Deaths, 80.
Aguascalientes.....	Dec. 14-19.....	1	1	
Durango.....	Dec. 1-31.....		3	
Guadalajara.....	Dec. 8-Jan. 4.....	165	1	Including municipalities in Federal district.
Mexico City.....	Nov. 22-Jan. 9.....	1	1	
Tampico.....	Dec. 21-Jan. 10.....		1	
Torreón.....	November, 1925.....	3	1	
Morocco.....	August, 1925.....			
Palestine.....				
Jaffa.....	Dec. 1-7.....	1	1	
Nazareth.....	Nov. 3-9.....	1	1	
Safad.....	Nov. 24-30.....	1	1	
Tel-Aviv.....	do.....	1		
Peru.....				
Arequipa.....	October, 1925.....		2	
Poland.....	Oct. 11-Nov. 14.....	142	16	
Rumania.....				July, 1925: Cases, 74; deaths, 9.
Russia.....				May-June, 1925. Cases, 10,680.
Do.....				Later than previously published reports.
Union of South Africa.....				July-August, 1925: Cases, 3,136.
				Oct. 1-31, 1925. Cases, 83; deaths, 7 (colored); cases, 7 (European population).
Cape Province.....	Oct. 1-31.....	63	5	Colored.
Do.....	Nov. 8-14.....			Outbreaks in two districts.
Middleburg District.....	Dec. 6-12.....	1		European On farm.
Natal.....	Oct. 1-Dec. 5.....	1		
Orange Free State.....	Nov. 29-Dec. 5.....	23	1	
Do.....	Nov. 1-7.....			Outbreaks.
Bethuba District.....	Dec. 6-12.....			Do.
Bothaville District.....	do.....	1		Native. On farm.
Transvaal.....	Oct. 1-31.....	1	1	

## YELLOW FEVER

Gold Coast.....	September.....	1	1	
Nigeria.....	August-September.....	2	1	

X





TREASURY DEPARTMENT

# PUBLIC HEALTH REPORTS

ISSUED WEEKLY

BY THE UNITED STATES  
PUBLIC HEALTH SERVICE

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VOLUME 41    ::    ::    NUMBER 8

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FEBRUARY 19 - 1926

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## SPECIAL ARTICLES

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Butter, Fresh Beef, and Yeast as Pellagra Preventives  
Bacterial Pollution and Natural Purification in Rivers  
Measles in the United States, 1923, 1924, and 1925



WASHINGTON  
GOVERNMENT PRINTING OFFICE  
1926

# UNITED STATES PUBLIC HEALTH SERVICE

HUGH S. CUMMING, *Surgeon General*

## DIVISION OF SANITARY REPORTS AND STATISTICS

Asst. Surg. Gen. B. J. LLOYD, *Chief of Division*

The PUBLIC HEALTH REPORTS are issued weekly by the United States Public Health Service through its Division of Sanitary Reports and Statistics, pursuant to acts of Congress approved February 15, 1893, and August 14, 1912.

They contain: (1) Current information of the prevalence and geographic distribution of preventable diseases in the United States in so far as data are obtainable, and of cholera, plague, smallpox, typhus fever, yellow fever, and other communicable diseases throughout the world. (2) Articles relating to the cause, prevention, or control of disease. (3) Other pertinent information regarding sanitation and the conservation of the public health.

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# PUBLIC HEALTH REPORTS

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NO. 8

## **A Further Study of Butter, Fresh Beef, and Yeast as Pellagra Preventives, with Consideration of the Relation of Factor P-P of Pellagra (and Black Tongue of Dogs) to Vitamin B**

By JOSEPH GOLDBERGER, Surgeon; G. A. WHEELER, Surgeon; R. D. ILLIE, Passed Assistant Surgeon; and L. M. ROGERS, Assistant Surgeon, United States Public Health Service

A pellagra-preventive feeding experiment begun in 1914 by Goldberger, Waring, and Willets and carried on for a period of three years resulted in demonstrating the complete preventability of pellagra by diet alone (1). This experiment was of such a character, however, that it did not in itself reveal just what food or foods were to be credited with the preventive action. It could be considered as suggesting, at most, that the fresh meat and milk of the diet were concerned in bringing about the protective effect. The probability that both meat and milk contained the factor or factors which operated to prevent the development of the disease gained strength from the results of a study of the relation of diet to pellagra incidence among households of certain South Carolina cotton-mill villages carried out during 1916 by Goldberger, Wheeler, and Sydenstricker (2). In that study it was found not only that pellagra occurred less frequently or not at all in households having a daily minimum average supply of approximately a pint of milk or 30 grams of fresh meat per adult unit, but also that an increasing supply of each of these foods independently of the other was definitely associated with a decreasing pellagra incidence.

The soundness of the inference drawn from these studies, together with the inference from such epidemiological observations as the well-known rarity of the disease in nursing infants, that milk when a generous element in the diet operates to prevent pellagra was, in 1922, demonstrated by Goldberger and Tanner (3) by direct test. In that test it was found that a daily supplement of approximately 1200 grams (40 fluid ounces) of fresh buttermilk prevented the development of recognizable evidence of the disease in all of a group of 25 insane patients during a period of observation of one year when, in the absence of the buttermilk or other equivalent preventive, upward of 40 or 50 per cent of the group would, judging by previous experience, have developed the disease within a period of three to seven or eight

months. A test of dry skim milk (a Merrel-Soule product) carried out by the same workers (4) during the period July, 1923-September, 1924, resulted in showing that when taken in a daily quantity (105 grams) approximately equivalent (on the basis of protein content) to that of the fresh buttermilk, the dry skim milk was not fully adequate as a pellagra-preventive, and thus distinctly inferior to fresh buttermilk, since of some 22 pellagrins taking the dry skim milk, four developed either definite or very suggestive evidence of a recurrence of the dermal lesions of pellagra. The inferior potency of dried skim milk was recently further impressed on us by observing the occurrence of two recurrent attacks in a patient on a liquid diet containing 125 grams of such milk.<sup>1</sup>

### Butter

The evidence that milk had preventive action in pellagra naturally suggested an inquiry as to whether butter had similar properties. In a previous communication (3) mention was made of the very disappointing results of such an inquiry. The butter to which this had reference was from the general supply of the Georgia State Sanitarium and was produced in batches of a few pounds each by farmers in the general vicinity of this institution in central Georgia and sold by them to the Sanitarium. The study was made at a season when the cows yielding the butter were and had for some time been largely pasture fed. Although tried repeatedly and in increasing quantities (in several instances the patients were known to have consumed an average of approximately 135 to 145 grams daily during a period of from three to upward of five months), this butter practically invariably failed to prevent recurrence of the disease.

The favorable results in the treatment and prevention of the Chittenden-Underhill (5) pellagralike disease of dogs (black tongue (6)), reported by Underhill and Mendel (7), with butter from a Northern locality suggested, in view of the possibility, if not probability, that this canine disease may be the analogue of human pellagra, the

---

<sup>1</sup> As this observation has a number of interesting bearings, mention of the more significant details may here be made:

A white, insane, female pellagrin, 35 years old and weighing 47 kilos, came under observation May 14, 1924, with mild dermal pellagra. The dermal lesions persisting, though with remissions, and the patient being so poor an eater as to make tube feeding from time to time necessary, she was changed on July 19, 1924, from the general ward diet to the following liquid diet: Dry skim milk (Merrel-Soule), 125 grams; cod liver oil, 28 grams; cottonseed oil, 70 grams; sucrose, 200 grams; tomato juice (from canned tomatoes), 170 grams; table salt, 5 grams in water. The dermal condition now cleared up, but a stomatitis gradually developed, and on September 29, 1924, that is, about two months after beginning this milk diet, the distinctive dermatitis reappeared. On October 10 she began taking a supplement of "Yeast Vitamine-Harris Powder," 25 grams daily. Eight days later this was reduced to 10 grams. Gradually the dermatitis and stomatitis cleared up. On January 15, 1925, the patient appearing in excellent condition, the "yeast vitamine" supplement was discontinued. She continued seemingly in good condition, taking all the milk ration until April 29, 1925, when lesions that proved to be those of a pellagrous dermatitis began to appear on her hands. Thus this patient had a relapse of her attack of pellagra at the end of a period of about two months, during which she daily consumed 125 grams of dry skim milk (representing about 44 grams of milk proteins), and a recurrence of the disease at the end of a further period of about seven months of this diet, or about three and a half months after discontinuing the supplement of a commercial yeast concentrate.

desirability of trying butter from a similar locality in the human disease. And this all the more as it seemed possible that butter from a northern dairying locality, presumably affording superior pasture at certain seasons, might be more potent in the factor preventing black tongue (and, possibly, pellagra) than that from the nondairying region of central Georgia. Accordingly, a supply of such butter laid down in Vermont early in July, 1924, was secured.<sup>2</sup> It was kept in cold storage at New Haven, Conn., until the fall of the year (October), after which time express shipments in quantities as needed were made to us at the Georgia State Sanitarium, where the study was carried out. At the Sanitarium it was kept in the Sanitarium refrigerator room and issued daily in the required amounts. The approximate composition of the butter-supplemented diet is shown in Table 1.

The results of trials in pellagra prevention made with this butter were no more favorable than those made with butter locally produced. Recurrence of the disease was observed in some patients (weighing between 40 and 50 kilos) in spite of a daily consumption of approximately 147 grams (about 5 ounces) of the Vermont butter during periods ranging from two to seven months.

It is possible that these periods were in most instances somewhat longer, that is, that the recurrence of the eruption was somewhat later, than would have been the case had the butter been absolutely devoid of preventive action. In this respect the Vermont butter did not differ appreciably from that locally produced. Our study was not on a sufficient scale to permit of sound judgment on this point; the indications afforded by our preliminary trials were so decidedly unsatisfactory as not to justify their continuation. Recalling, however, that fresh buttermilk was found to have pellagra-preventive action (3) it would seem reasonable to expect that butter may carry at least a trace of the special pellagra-preventive essential (factor P-P). Considering the very large quantity of butter daily consumed by some of our patients, its definite failure to prevent in these a recurrence of the disease seems to us, however, to indicate that if the butter with which we worked (both the Vermont and the Georgia product) contained this factor it contained it in a practically negligible quantity.

Assuming, as seems reasonable in view of Underhill and Mendel's report, that the Vermont butter contained the black-tongue-preventive substance, then it would seem as if this substance and factor P-P were not identical or that it had undergone deterioration during the time before the butter was used. The latter possibility would seem all the more plausible, as Underhill and Mendel (7) report that butter of known origin and rich in the black-tongue-protective substance

<sup>2</sup> We were able to do this through the kind courtesy of Professor Underhill, who introduced us to the dealer who supplied him and who undertook to secure for us some of the same butter as that secured for Professors Underhill and Mendel.

gradually loses its effectiveness when kept in cold storage for a period of approximately one year or less. In considering this possibility it must be noted that our Vermont butter began to be served to our patients about the middle of October, 1924, or about three months after it was laid down, and the first recurrence of pellagra in patients taking it developed during the latter half of February, 1925,<sup>3</sup> or not over about 7½ months after the butter was made. If our disappointing experience with Vermont butter was due to loss of potency, then it would seem as if the P-P factor (in butter) undergoes deterioration surprisingly quickly<sup>4</sup>. Since our Georgia butter was always relatively quite fresh, loss of potency incident to long storage can hardly enter into consideration in relation to the failure of this product, so that it would seem as if this must have been poor or lacking in the P-P factor from the outset. Considering our experience with butter as a whole and in the light of the fact that our study of fresh buttermilk produced near the Sanitarium showed this to contain the P-P factor, it would seem more probable that, like our Georgia butter, the Vermont product was poor or lacking in the P-P factor in the first place rather than that this had undergone deterioration and therefore that this factor and the black-tongue-preventive substance are not identical. So far as the above recorded experience with butter goes, these factors may, indeed, be distinct; but we should here perhaps state that our own experience with butter in experimental black tongue is in harmony with that in pellagra. In our own study, butter has failed us in the treatment and prevention of experimental black tongue just about as it has failed us in the treatment and prevention of pellagra. We have no explanation to suggest of the difference in our results with butter in black tongue from those reported by Underhill and Mendel, except the possibility that the black-tongue-preventive factor entered into their basal diet from some unsuspected source. It was just such occurrence in our own work that led to the discovery of the black-tongue-preventive potency of yeast.

### Beef

The belief that fresh meat contains the pellagra-preventive factor or factors was, up to 1924, based on indirect evidence of the character cited in a preceding section of this report. In that year Goldberger and Tanner (3) added to that evidence by reporting very favorable results of treatment in eight well-marked though not very severe (mainly dermal) cases, with fresh beef as the only known therapeutic element in the diet. Though carried out with all possible care it was

<sup>3</sup> In a patient who had come under observation and had begun taking the full allowance of this butter at about the middle of December, 1924.

<sup>4</sup> A test of the vitamin A potency of this butter made during December, 1925, when it was about 17 months old, showed it to be quite efficient in curing xerophthalmia in a dose of 100 mgm. of the fat daily. A smaller dose was not tested.

realized that a therapeutic test on so restricted a scale could at best hardly be more than strongly suggestive; and while it was in harmony with and strengthened previous indications that fresh beef contains the pellagra-preventive factor or factors, it was, nevertheless, felt that a preventive feeding test would be needed to prove this conclusively. We have carried out such a test as a detail of the study of pellagra prevention that has been in progress at the Georgia State Sanitarium since 1914, the pertinent facts in relation to which are as follows:

In this test we used fresh beef drawn from the Sanitarium supply. The muscle meat was trimmed free of tendon, gristle, and visible fat, run through a meat chopper and a weighed amount, at the rate of seven ounces (200 grams) per patient per day, was stirred into a little water, seasoned with salt, and quickly brought to a boil. This daily ration was served and well taken in equal portions at breakfast and at the midday meal.

The determination of the daily allowance was largely arbitrary. Since our purpose was, if possible, to show that the disease could be prevented completely by a liberal though not excessive quantity of this food, we decided on the allowance (200 grams) that had served us very satisfactorily in the treatment of active cases (3), judging that this would be very likely to fulfill the, presumably, somewhat less exacting requirements of prevention. The approximate composition of the diet thus supplemented is shown in Tables 2 and 3.

The test was begun December 17, 1924, and carried on for one year to December 31, 1925. During this period 26 pellagrins were taken under observation for preventive treatment with the beef-supplemented diet. Of this number, two were under observation for periods so brief as to have no significance, three were under observation for fully ten months, and the remaining 21 for fully one year. In none of these patients was there observed any recognizable evidence of a recurrence of pellagra, although in the light of repeated experience with this class of patients<sup>5</sup> it is safe to state that in the absence of the beef or other equivalent preventive food upward of 40 or 50 per cent of them would have suffered a return of the disease within a period of from three to seven or eight months. The complete absence of any indication of a recurrence in any of this group of pellagrins—twenty-one of whom, as stated, were under observation for a year—would therefore seem to be conclusive evidence of the preventive action of the fresh lean beef.

Although no recurrence of pellagra was observed in any of these patients it is of much interest to note that mild evidence of beriberi developed in five of them. The most striking and constant indication

<sup>5</sup> Five of the 21 who were under observation a full year had had at least two previous attacks of the disease.

of beriberi was a slight and variable edema of the legs beginning over the shins, in the feet, or in both these parts, and was noted in the first case of this group of patients about June 11, 1925, or nearly six months after the patient had begun the beef diet. Following an increase in the whole maize meal and the cowpeas at the expense of the grits and rice, designed to increase the vitamin B (antineuritic) content of the diet (compare Table 3 with Table 2), the edema began to subside and before the close of the period of observation this and such other symptoms as may have been present (tachycardia, pain and tenderness of the legs) had cleared up completely. Evidently the beef diet, while adequate to prevent pellagra, was, during about the first six months of this study, slightly deficient in the beriberi vitamin.

#### Yeast

Some very favorable indications afforded by therapeutic and preventive tests of yeast in experimental black tongue of dogs (8) led to a study of the action of this preparation in pellagra. The results of that study were published a year ago (4); they indicated that dried yeast was an efficient pellagra-preventive. Toward the close of the study its favorable progress, particularly in view of the failure of casein, suggested the desirability of studying in a similar way the protein-free yeast fraction of Osborne and Wakeman (9), and this all the more as a commercial preparation of what we understood was this fraction was available on the market. This has been done with results as follows:

We have worked with the commercial preparation marketed under the name of "Yeast Vitamin-Harris Powder" of the Harris Laboratories, Tuckahoe, N. Y. This preparation appears to have come into use in a number of laboratories as a convenient supposedly protein-free concentrate of vitamin B and is commonly but, we find, erroneously assumed to be the Osborne and Wakeman yeast fraction II (9). It is possible that when first marketed it may have been this yeast fraction; we are advised, however, by Dr. I. F. Harris, director of the Harris Laboratories, and, with his permission, state that now this preparation is simply the dried watery (acidulated) extract of yeast prepared, Doctor Harris states, according to a somewhat modified Osborne and Wakeman (9) technique. This is claimed by Doctor Harris to be but negligibly, if at all, inferior in vitamin B potency to fraction II of Osborne and Wakeman (9).

The dose of this preparation decided on for administration to our patients was one-half of that used in the study of dried yeast, that is, 15 grams a day.<sup>6</sup> In a few instances and for brief periods this was increased for therapeutic purposes to 30 grams. It was given dissolved in a little tap water in equal portions at each meal

<sup>6</sup> It may well be that considerably less than this may suffice as a preventive.



during the first three months of the study. After this period it was all given at one time at the supper meal.

The basic diet given the patients receiving this vitamin powder supplement was essentially identical with that given the patients receiving beef, and is shown in Tables 4 and 5.

The study was begun May 26, 1924, with the treatment of a case in a recently admitted patient with a sharp attack (dermal and mental). Since then 22 patients in all have come under this treatment. Of these, 12 presented more or less pronounced active symptoms, including the dermatitis, and 3 the stomatitis, etc. of a *pellagra sine pellagra*. Seven came under observation for purely preventive treatment, being without active symptoms of the disease at the time.

Of these 22 patients, 1 has been under observation for 16 months, 1 for 14 months, 1 for 13 months, 5 for 12 months, 2 for 8 months, 2 for 7 months, and the others for various shorter periods.

Under the treatment, the active symptoms of the disease, in those presenting such, cleared up and, what is of much greater significance, in no case while taking the yeast extract has there been any recognizable evidence of a recurrence.

Recalling that our expectation, based on long experience with this class of patients, was that some 40 or 50 per cent of them would have developed evidence of a recurrence within some three to seven or eight months in the absence of the vitamin powder or equivalent preventive, the absence of any recurrence whatever in any of the patients, eight of whom were under observation for at least one year, is, in our judgment, conclusive evidence of the pellagra-preventive action of this yeast extract.

Here we wish to record that, as in the case of the beef study, a number of the patients taking the yeast extract developed evidence of beriberi.<sup>7</sup> In these, six in all, as in the five mentioned in connection with the study of beef, the most striking and constant indication was a slight edema of the feet or feet and legs. This appeared first about May 24, 1925, in a patient of this group who began taking the yeast vitamin preparation on November 21, 1924, or about six months after beginning this treatment.

The changes in diet looking to an increase in the beriberi vitamin, mentioned in connection with the cases observed in the patients taking beef, were made between June 22 and June 26, 1925, and also affected the patients taking the "yeast vitamin" powder (compare

---

<sup>7</sup> Having been led to believe from the literature that this preparation was exceptionally rich in vitamin B (antineuritic), this occurrence both surprised and perplexed us at first, but the development of the same syndrome in some of the patients in the beef study, together with the clearing up of the symptoms following upon the changes in diet designed to increase the antineuritic vitamin, convinces us that the 15 grams of "yeast vitamin" powder supplied little if any more antineuritic than did the 200 grams of fresh beef.

Table 5 with Table 4). By this date, however, three of the patients had already completed an observation period of a year, one of fully 11 months, one of 9½ months, and one of 7 months. Following the indicated modifications in the basic diet the evidence of beriberi gradually subsided and disappeared.

Thus the yeast extract-supplemented diet, like the beef-supplemented diet, was adequate to prevent pellagra, but, until certain modifications were made (which for certain patients were not in effect until after 7 to 12 months after beginning the "yeast vitamin" treatment), was slightly deficient in the beriberi vitamin.

### Discussion

The results of previously published studies (3) (4) have been interpreted as indicating that in the prevention and, presumably, causation of pellagra there is concerned a previously unrecognized or unappreciated dietary essential (designated as factor P-P) which may be effective with but little, possibly without any, cooperation from the protein factor. The results of the studies presented above serve, we believe, to strengthen this interpretation and to increase the probability that factor P-P plays the sole essential rôle in the prevention of the disease.

It seems well established that the muscle of beef is relatively poor in all the commonly recognized dietary essentials except protein. So that, at first thought, it might plausibly be suggested that the preventive action of fresh beef is due to this constituent. When it is recalled, however, that, in a study carried out by Goldberger and Tanner (4), a daily supplement of 69 grams of casein (approximately 60 grams of protein) failed fully to prevent the disease, it is difficult to attribute the marked potency of the beef supplement to its 45 grams of protein, or, at least, to this protein alone. This difficulty is enhanced and the presence of another factor in the beef more strongly suggested when we recall the distinctly inferior pellagra-preventive potency (on the basis of protein content) of dried skim milk as compared with fresh buttermilk already referred to in the introductory section of this report.

The evidence of pellagra-preventive activity of the supplement of 15 grams of the yeast extract appears to us to point still more strongly to the existence of a special pellagra-preventive essential (factor P-P), and to the probability that this may be effective without any cooperation from the protein. This preparation is believed to be low in or lacking appreciable amounts of protein, and while it has a fairly high nitrogen content<sup>1</sup> it seems reasonably certain that only part of this is in a form conceivably capable of supplementing the protein

<sup>1</sup> One sample analyzed in the Division of Chemistry of the Hygienic Laboratory was found to contain 7.59 and another 7.14 per cent nitrogen.

of the diet. Assuming, however, that all of its nitrogen is in the form of protein, the 15 grams of the dried extract would, on this assumption, contribute at most about 7.5 grams of protein. To attribute to this small addition the preventive potency of this preparation would imply that its nitrogen is in a form possessing supplementing properties notably superior to those of not less than about 36 grams of milk proteins (dried skim milk) and to those of 60 grams of casein protein. While this may conceivably be the case it seems so highly improbable as to warrant the conclusion that the preventive action of the yeast extract is due primarily to a special pellagra-preventive substance (factor P-P).

It would appear then, that, unlike butter, fresh lean beef and yeast contain a factor (factor P-P) which probably plays the primary rôle in the prevention and the causation of pellagra.

#### RELATION OF FACTOR P-P TO VITAMIN B

If the foregoing interpretation is, as we believe, sound, it follows that the "yeast vitamin" powder with which we have worked is not, as it has generally been considered, a concentrate of vitamin B alone, but contains also and, apparently, in considerable concentration, the pellagra-preventive factor P-P.<sup>9</sup>

It seems necessary at this juncture to anticipate the publication of the results of our experimental study of black tongue of dogs. This study, begun over four years ago, is still in progress, but we may now state that we have experimentally induced this canine disease by feeding dogs certain diets previously found associated with the occurrence of pellagra, including the Rankin prison farm experimental diet (10). Some modifications of certain of these diets have resulted in giving us our standard experimental black-tongue-producing diet. This is shown in Table 6. A somewhat simpler diet also black-tongue producing is shown in Table 7. In this study, white and yellow maize meal, casein, cod liver oil, and butter have been found very poor, or lacking, in the black-tongue preventive factor. Milk has been found to possess inferior preventive activity. A test of fresh lean beef, although not yet completed,<sup>10</sup> is sufficiently far advanced to warrant the statement that this possesses considerable black-tongue-preventive potency (see Table 8). Dried yeast and the commercial yeast extract referred to above have been found very efficient preventives of black tongue. Seidell's activated solid (11) in a daily dose at the rate of 2 grams per kilo of body weight as a supplement to basic diet 123, shown in Table 6, has black-tongue-preventive action. Thus the black-tongue-preventive factor is present

<sup>9</sup> So far as the above recorded experience with this preparation goes, it would suggest that this preparation may be richer in factor P-P than in vitamin B.

<sup>10</sup> It has three more months to run to complete a period of one year, our usual period in such cases.

in lean beef muscle, in yeast, and in the commercial dried watery extract of yeast, and it is adsorbed from a watery extract of yeast by English fullers' earth. Our data appear to indicate that this factor is a dietary essential, heretofore either not recognized or not appreciated as such, necessary for the nutrition of the dog.

From the foregoing it appears that the substances that have been found to possess black-tongue-preventive potency have, when tried in pellagra, been found efficient preventives of the human disease; those that had failed in pellagra or were of low pellagra-preventive potency (milk) when tried in black tongue have failed or were feeble as preventives of the canine syndrome. In view of this striking similarity, if not identity, of behavior we feel justified in adopting, and are planning our studies of pellagra on, the working hypothesis that black tongue of dogs is the analogue of pellagra in man. Accordingly, it may tentatively be assumed that factor P-P is the dietary essential primarily concerned in the prevention and causation of both black tongue and pellagra. The assumption of this identity seems all the more reasonable as otherwise it would (and it still may) be necessary to conclude that the "yeast vitamin" powder contains in addition to the pellagra-preventive essential, also a special black-tongue-preventive factor. Thus assuming that we are dealing with one factor (P-P) let us consider its relation to "water soluble B."

Although this water-soluble vitamin has quite generally been considered as representing a single dietary factor having both antineuritic and growth-promoting properties, a number of investigators (12) have dissented from this view and have advanced reasons for believing that it includes at least two distinct dietary essentials—one the antineuritic or beriberi vitamin (vitamin B *sensu stricto* according to Funk (13)) and the other a "growth-promoting" factor which some workers (14) believe identical with Wildiers' bios. Thus with the possibility before us that vitamin B may include at least two distinct dietary essentials, it becomes necessary to consider the relation of factor P-P to these two at least.

In previous publications (3) (4) evidence was adduced that was interpreted as excluding vitamin B from consideration as essential in relation to the prevention and causation of pellagra. This had reference to vitamin B in the generally accepted sense of the antineuritic or antiberiberi vitamin. That vitamin B in this sense, that is, as the antiberiberi essential, and factor P-P are distinct and may perform their physiological functions independently, is also, and we believe quite conclusively, shown by the fact of the rare association of the two diseases beriberi and pellagra. An interesting example of this independence of action is the observation, mentioned in a preceding section, of the occurrence of beriberi in some of the patients

taking the beef and in others taking the yeast extract-supplemented diets. The fact that very exceptionally the two diseases may occur together in the same patient (15) emphasizes the significance of the rarity of such association. In other words, while the diet may at the same time be deficient in both the beriberi- and the pellagra-preventive essentials, ordinarily, in endemic localities of these diseases, the diet concerned is deficient in one and not (or but inappreciably) in the other factor.

With respect to the relation of factor P-P to the second, the so-called growth-promoting essential, possibly included in the designation "water-soluble B," the studies presented in the foregoing afford no basis for judgment. It may be stated in this connection, however (again anticipating the publication of certain of the results of the experimental study of black tongue), that the discovery of the black tongue- (and pellagra-) preventive potency of yeast has led to a study designed to elucidate the characters of factor P-P and thus, perhaps, aid in the determination of its identity. This study has revealed that factor P-P is adsorbed from an acidulated watery extract<sup>11</sup> of yeast by English fuller's earth (Seidell's activated solid); that yeast heated to charring no longer possesses appreciable black tongue-preventive activity. After heating in the steam autoclave at 15 pounds for two and one-half hours, the yeast retains, our tests in dogs show, much, if not all, of its activity in the prevention of black tongue; but when young rats are fed a diet in which the sole source of "water-soluble B" is derived from as much as 30 or 40 per cent of this autoclaved yeast, and which is otherwise complete for growth, their growth is quickly arrested, their weight then declines, and they die with or without symptoms of polyneuritis (Chart 1, period 4, and Chart 2). The unheated yeast,<sup>12</sup> it may be noted, when fed young rats in diets at an 8 or 10 per cent level, provides sufficient "water-soluble B" for good, though not for optimal, growth. Thus, according to current ideas, the heating for two and one-half hours inactivates the water-soluble vitamin (as it exists in dried yeast; it does not appreciably affect it as it exists in Seidell's activated solid), but obviously does not notably affect the P-P factor. Evidently, too, factor P-P is not of itself growth promoting. Furthermore, if the so-called growth-promoting water-soluble vitamin of the yeast is distinct from the antineuritic and from the P-P factor, then either the heating has inactivated it or, like factor P-P, it is not a special "growth" factor.

But that factor P-P or some associated (and, in yeast, relatively thermostable) factor, distinct from the antineuritic, is essential for growth (of the rat at least) would appear from the following: 1.—

<sup>11</sup> We have gained the impression that factor P-P is relatively much more soluble in acidulated water than in 85 per cent (by volume) alcohol, whereas the antineuritic is relatively readily soluble in both.

<sup>12</sup> Fleischmann's wort-grown, low temperature dried yeast was used.

When young rats are fed a diet complete for growth except as to "water soluble B" and containing as the sole source of this vitamin as much as 30 or 40 per cent of yeast<sup>12</sup> previously heated in the autoclave at 15 pounds for two and one-half hours (and from tests

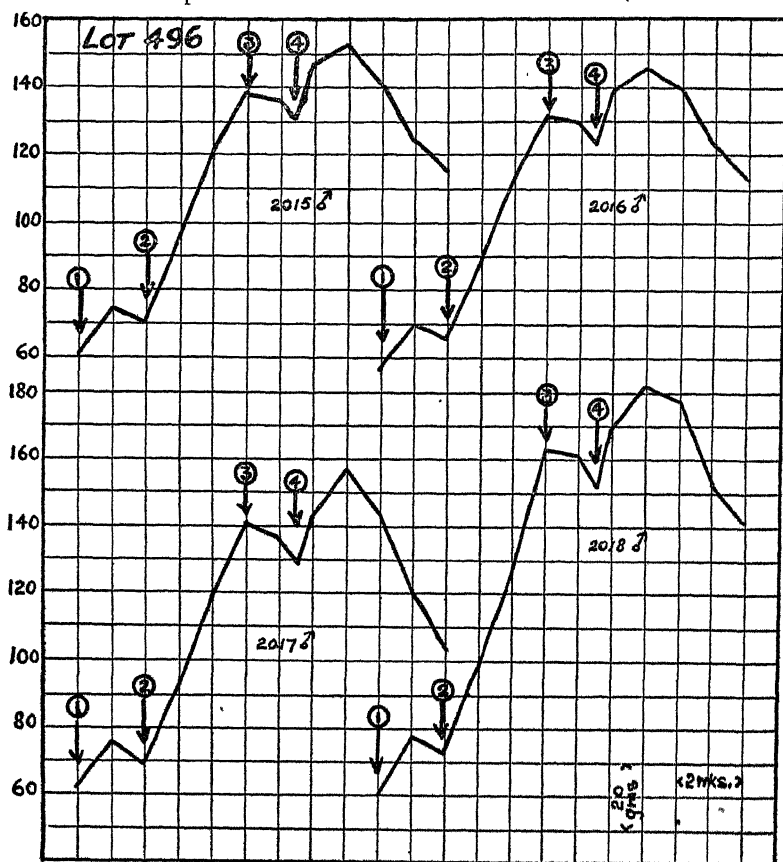


CHART 1.—Weight curves of four young albino rats during four dietary periods. During period 1 their diet (No. 218) included as the sole source of "water soluble B" 40 per cent of an alcoholic extract of corn. After an initial gain in weight they began to lose, whereupon there was added to their diet 9 per cent of yeast previously autoclaved at 15 pounds for  $2\frac{1}{2}$  hours. This was at once followed (period 2) with a resumption of growth which was well maintained during three weeks, at the end of which a change in diet was again made. This change consisted of the withdrawal of corn extract and autoclaved yeast thus giving them the basic diet (No. 206) without any known source of "water soluble B." Growth was at once arrested, followed by a downward trend in weight (period 3). Now another change in diet was made. The basic diet (No. 206) was replaced by one which included 40 per cent of autoclaved yeast as the sole source of "water soluble B" (diet No. 239). This change was followed by a resumption of growth, which lasted but a short time, and was followed by a progressive loss in weight. Thus neither 40 per cent of the corn extract nor 40 per cent of the autoclaved yeast, when the sole source of "water soluble B" permitted the rats to grow, but when only 9 per cent of the autoclaved yeast was added to the diet containing the corn extract growth took place and was maintained.

in dogs shown to contain P-P), they quickly decline in weight after a slight initial rise and die with or without signs of polyneuritis (Chart 1, period 4, and Chart 2) (antineuritic deficient). 2.—When young rats are fed a diet complete for growth except as to the "water

soluble B," but containing as the sole source of this vitamin as much as 40 per cent of a preparation of an alcohol extract<sup>13</sup> of corn meal that can alleviate or cure polyneuritis in the rat, the weight of such animals, after slight initial growth, is arrested and then declines (Chart 1, period 1, and Chart 3). 3.—If, however, young rats are fed a diet, as before, complete for growth except as to the "water-soluble B," but containing as sources of this vitamin as little as 8 or 10 per cent of the autoclaved yeast and as little as 5 per cent of our extract of maize meal, the animals grow (Chart 4. See also Chart 1, period 2).

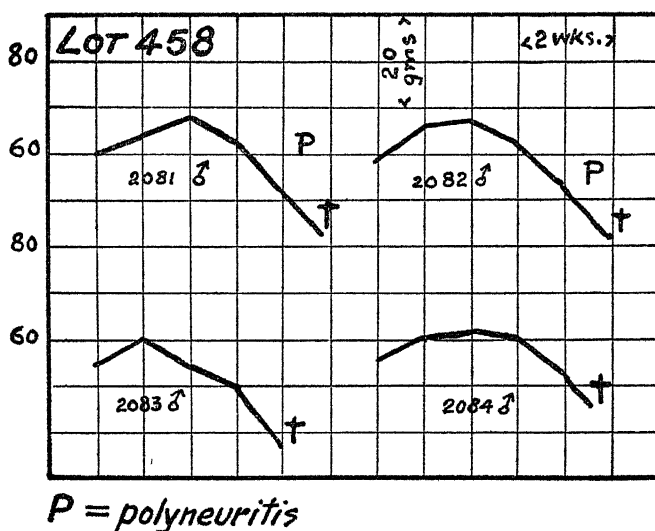


CHART 2.—Weight curves of four young albino rats whose diet (No. 227) included as the sole source of "water soluble B" 27 per cent of autoclaved yeast. Slight initial growth was followed by arrest and continued loss of weight terminating in death. Two of the animals developed signs of polyneuritis.

Again, when young rats are fed a diet complete for growth except as to the "water soluble B" and containing 20 per cent of dried fresh lean beef (which, judging by experience with pellagra and black tongue, contains factor P-P) as the sole source of this vitamin, such animals, as is well known, after slight initial growth, decline in weight and die with or without polyneuritis (Chart 5, period 1) (antineuritic deficient). If, however, when signs of polyneuritis begin to appear, there be included in such diet as little as 5 per cent of our alcoholic corn extract (40 per cent of which as the sole source of water-soluble vitamin in a diet does not enable the rat to grow), the animals, if not

<sup>13</sup> This extract is prepared by intermittent percolation of whole white corn meal at room temperature with alcohol of 85 per cent by volume strength, until about 6.5 liters are obtained from 5 kg. corn meal. The percolate is put into a distilling flask and concentrated to about one-fifth to one-fourth its volume. This is then poured into a pan on a water bath and corn starch stirred into it at the rate of 125 gm. of starch to 5 kg. of corn meal used. The remaining alcoholic liquid is driven off by fanning. The damp residue is then transferred to glass dishes and further dried in a current of warm air, after which it is ground into a powder. For each 18 to 18.5 gm. of corn meal 1 gm. of this product is thus obtained.

too far gone, recover from polyneuritis and resume growth (Chart 5, period 2). Evidently our alcoholic extract of maize contains an essential that cures polyneuritis in the rat, and while not growth promoting<sup>14</sup> of itself, permits or promotes growth when combined in a diet otherwise complete for growth except for "water soluble B" with a suitable proportion of a P-P-containing substance such as autoclaved yeast or beef (which itself, within certain limits, neither prevents polyneuritis nor permits growth).

Thus, autoclaved yeast and beef muscle contain a factor distinct from the polyneuritis-preventing vitamin which in combination with the antineuritic is essential for the growth of the rat. From the facts presented, it seems probable that this is the same as factor P-P, and some of the work in the very confusing literature relating to the identity of the "growth-promoting" complex of "water soluble B" with bios appears to us to be in harmony with this interpretation. Further investigation will, however, be required to determine this.

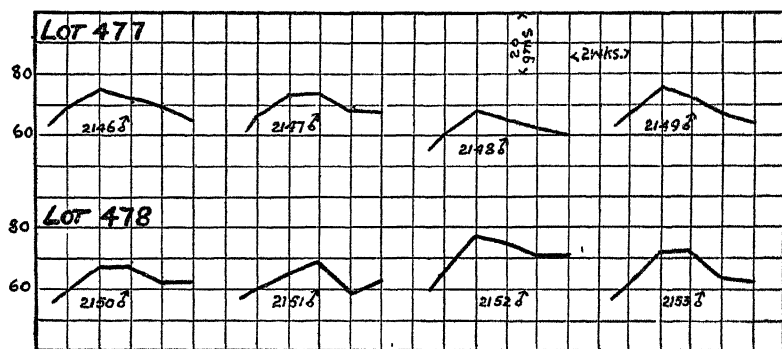


CHART 3.—Weight curves of two lots of young albino rats. The diet of both was free of "water soluble B" except as supplied by 6 per cent (lot 477, diet 238 B) and 12 per cent (lot 478, diet 238 C), respectively, of our corn extract. Growth was quickly arrested.

In any event investigators using the rat-growth test must hereafter recognize and take due account of at least two essentials (B *sensu stricto* and P-P) where heretofore only one was considered. This is, perhaps, of special importance to those heretofore occupied in the chemical isolation of the beriberi vitamin. It may well be suspected that the highly "active" concentrates, supposedly of vitamin B (*sensu stricto*) that some of these workers have succeeded in preparing, in proportion as they enable the rat to grow in the absence of any other source of the "water soluble B" in the diet are concentrates of at least two factors. The rat-growth test may continue to be used as a test of the purity of a concentrate, but must be interpreted in a sense opposite to that heretofore current. The pure concentrate will be seemingly inert. The complete test of such a

<sup>14</sup> Relatively, not absolutely so.



concentrate (or a food substance) will necessitate combining it alternately with an adequate proportion of a proved preparation of the antineuritic and of the P-P factor, respectively, and, perhaps, of both, and this or some equivalent test will have to be made before an apparently inactive preparation (or food) can be adjudged as really inert. It is, at least, possible that in the past, workers in discarding "inactive" fractions have unwittingly been throwing away the very thing they were laboriously seeking. This may perhaps explain, at least in part, the somewhat unaccountable losses of vitamin in the process of fractionation of "active" preparations.

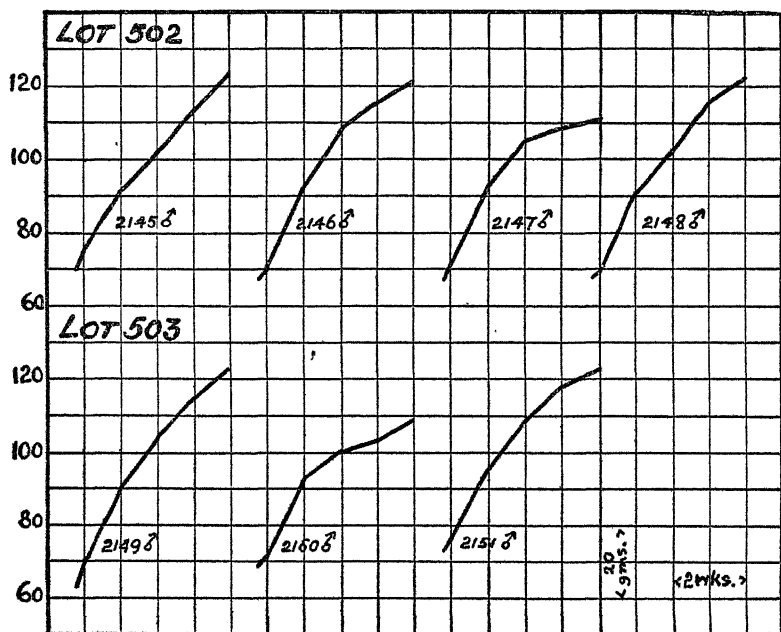


CHART 4.—Weight curves of two lots of young albino rats. The diet of both was free of "water soluble B" except as supplied by 5 per cent of our corn extract combined with, in the case of lot 502, 8 per cent (diet 243 E) and, in the case of lot 503, 10 per cent (diet 243 F) of autoclaved yeast. Although neither preparation alone when the sole source of "water soluble B" even to the extent of 40 per cent of the diet permits growth when, as here, much smaller proportions of each are combined growth takes place, thus proving conclusively that this is not simply an additive phenomenon. The growth of these animals is at a somewhat reduced rate; for optimal growth the percentages of both corn extract and autoclaved yeast would have to be increased.

In closing it may be permitted to suggest that investigators interested in the isolation of vitamin B may find maize a better source of this factor than yeast, since maize is much poorer in the associated thermostable factor or factors than is yeast.

#### Summary and Conclusions

1. Previous trials of butter in a daily quantity of about 140 grams (5 ounces) using a Georgia product had practically invariably failed

to prevent recurrence of pellagra. Further trials with a Vermont product proved no more favorable than those with the Georgia butter.

Butter would seem to be poor, or lacking, in the pellagra-preventive factor or factors.

2. The pellagra-preventive action of a daily allowance of 200 grams (7 ounces) of fresh meat in the form of lean beef was tested and found capable of completely preventing the disease, thus proving that fresh beef contains the pellagra-preventive factor or factors.

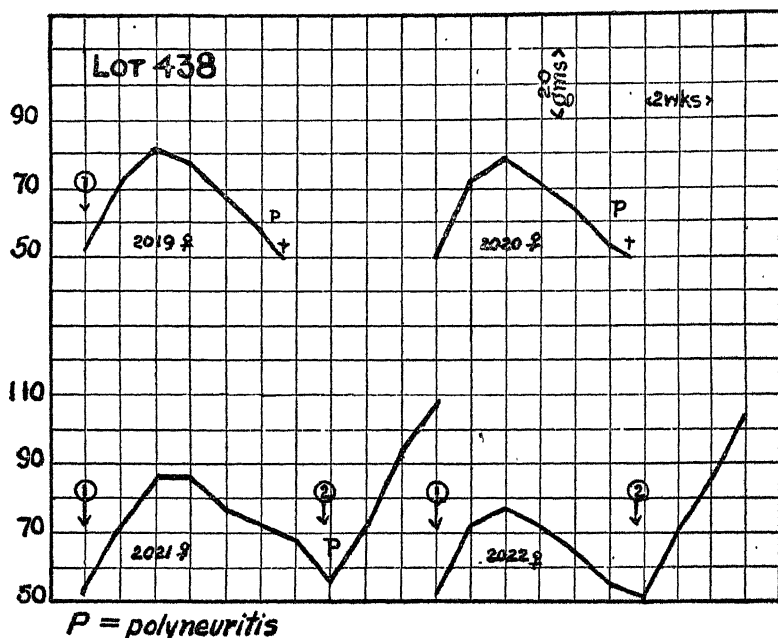


CHART 5.—Growth curves of young albino rats whose diet during period 1 included as the sole source of "water soluble B" 20 per cent of dried fresh beef. After some initial growth there was arrest followed by loss of weight with the development of signs of polyneuritis in three of the animals. After two of these died the diet was modified by adding 5 per cent of our corn extract (diet 219 A). This was followed by disappearance of the signs of polyneuritis in the survivor showing these, with prompt resumption of growth in both survivors (period 2). The beef contained sufficient P-P but was deficient in antineuritic. The small addition of corn extract supplied enough of this to supplement P-P sufficiently to permit growth to take place.

The beef-supplemented diet, though adequate for pellagra prevention, was, during about half of the period of study, slightly deficient in the beriberi vitamin.

3. The pellagra-preventive action of a dried yeast extract was tested in a daily quantity of 15 grams (half an ounce) and found efficient in preventing the disease.

The yeast-extract-supplemented diet was adequate to prevent pellagra, but, during a part of the period of observation, was slightly deficient in the beriberi vitamin.

4. The results of the studies presented are believed to strengthen the interpretation of those previously reported, namely, that in the

prevention and presumably causation of pellagra there is concerned a heretofore unrecognized or not fully appreciated dietary essential (factor P-P), and to indicate the probability that this may play the sole essential rôle in relation to the disease.

5. A statement of a preliminary character is made of some of the results of an experimental study of black tongue, and it is briefly pointed out that the substances that have been found to possess black-tongue-preventive potency have, when tried in pellagra, been found efficient preventives of the human disease and that those that had failed in pellagra, or were of low pellagra-preventive potency, when tried in black tongue have failed, or were feeble, as preventives of the canine disease. The working hypothesis has therefore been adopted that black tongue of dogs is the analogue of pellagra in man, and thus that factor P-P is concerned in the prevention and causation of both black tongue and pellagra.

6. The relation of the factor P-P to "water soluble B" is considered and evidence is cited showing—First, that the antineuritic factor (vitamin B *sensu stricto*) is distinct from the factor P-P and does not in itself suffice for the growth of the rat; second, that if the term "water soluble B" includes, as some investigators have suggested, in addition to the antineuritic factor a so-called growth-promoting essential (possibly identical with Wildiers' bios), this, like the antineuritic factor, is either inactivated by autoclaving, or does not suffice by itself for the growth of the rat; third, that factor P-P or some associated, and, in yeast, like P-P, thermostable factor (possibly the so-called growth-promoting factor) distinct from the antineuritic vitamin, though not sufficing in itself for the growth of the rat, is, in combination with the antineuritic, essential for growth in rats.

7. Whether factor P-P is, as at present seems most probable, identical with the so-called growth-promoting essential heretofore included (with the antineuritic) in the term "water-soluble vitamin B," or whether these are distinct, further investigation must determine.

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TABLE 1.—Approximate composition of butter-supplemented diet offered daily to certain pellagrins during the fall, winter, and spring of 1924-25

[Total calories: 2,301]

Diet		Nutrients		
Articles of diet	Quantity	Protein	Fat	Carbohydrate
<i>Basic:</i>	<i>Grams</i>	<i>Grams</i>	<i>Grams</i>	<i>Grams</i>
Corn meal <sup>1</sup> .....	185	15.5	8.7	136.9
Wheat flour.....	85	9.7	.9	63.8
Rice.....	14	1.1	.0	11.1
Cowpeas ( <i>Vigna sinensis</i> ) <sup>2</sup> .....	28	6.0	.4	17.0
Lard.....	4		4.0	
Tomato juice <sup>3</sup> .....	130			
<i>Supplemental:</i>				
Creamery butter (Vermont) <sup>4</sup> .....	147	1.5	125.0	
Calcium carbonate <sup>5</sup> .....	1.5			
Dilute hydrochloric acid (U. S. P.) (90 drops) <sup>6</sup> .....				
Syrup iodid iron (U. S. P.) (2 drops) <sup>6</sup> .....				
Total nutrients.....		33.8	139.0	228.8
Nutrients per 1,000 calories.....		14.7	60.4	99.5

<sup>1</sup> Whole maize meal, sifted in the kitchen and made into corn bread and mush.

<sup>2</sup> Served in place of the variable dry legume ration of the institution.

<sup>3</sup> From canned tomatoes, pressed through a cloth.

<sup>4</sup> A portion served at each meal; thoroughly stirred into the hot mush or mush, rice, and peas.

<sup>5</sup> Given to improve the mineral composition of the diet.

<sup>6</sup> Given with a view of correcting a possible gastric anaecidity so common in pellagrins.

TABLE 2.—*Approximate composition of fresh beef-supplemented diet offered daily to each of a group of colored female pellagrins during the period December 17, 1924–June 22, 1925*

[Total calories: 2,080]

Diet		Nutrients		
Articles of diet	Quantity	Protein	Fat	Carbo-hydrate
Basic:	Grams	Grams	Grams	Grams
Cornmeal <sup>1</sup> .....	140	11.8	6.3	103.6
Corn grits .....	48	4.4	.9	36.2
Wheat flour .....	70	8.0	.7	52.5
Rice .....	28	2.2	.1	22.1
Cowpeas ( <i>Vigna sinensis</i> ) <sup>2</sup> .....	14	3.0	.2	8.5
Sirup .....	90	-----	-----	63.9
Lard .....	42	-----	42.0	-----
Tomato juice <sup>3</sup> .....	130	-----	-----	-----
Supplemental:				
Fresh beef <sup>4</sup> .....	200	44.8	5.8	-----
Cod liver oil <sup>5</sup> .....	15	-----	15.0	-----
Calcium carbonate <sup>6</sup> .....	3	-----	-----	-----
Dilute hydrochloric acid (U. S. P.) (90 drops) <sup>7</sup> .....	-----	-----	-----	-----
Sirup iodid of iron (U. S. P.) (2 drops) <sup>6</sup> .....	-----	-----	-----	-----
Total nutrients .....	-----	74.2	71.0	286.8
Nutrients per 1,000 calories .....	-----	35.7	34.1	137.9

<sup>1</sup> Whole maize meal sifted in the kitchen and made into corn bread and mush.<sup>2</sup> Served in place of the variable dry legume ration of the institution.<sup>3</sup> From canned tomatoes, pressed through a cloth.<sup>4</sup> Lean muscle free of visible fat.<sup>5</sup> Given in place of the variable butter or margarine ration of the institution.<sup>6</sup> Given to improve the mineral composition of the diet.<sup>7</sup> Given with a view of correcting a possible gastric anacidity so common in pellagrins.TABLE 3.—*Approximate composition of fresh beef-supplemented diet offered daily to each of a group of colored female pellagrins during the period June 26, 1925–December 31, 1925. (The period June 22 to June 26 was a period of change from the diet shown in Table 2 to that shown here)*

[Total calories: 2,097]

Diet		Nutrients		
Articles of diet	Quantity	Protein	Fat	Carbo-hydrate
Basic:	Grams	Grams	Grams	Grams
Corn meal <sup>1</sup> .....	190	16.0	8.7	140.6
Wheat flour .....	70	8.0	.7	52.5
Rice .....	14	1.1	.0	11.1
Cowpeas ( <i>Vigna sinensis</i> ) <sup>2</sup> .....	28	6.0	.4	17.0
Sirup .....	90	-----	-----	63.9
Lard .....	42	-----	42.0	-----
Tomato juice <sup>3</sup> .....	130	-----	-----	-----
Supplemental:				
Fresh beef <sup>4</sup> .....	200	44.8	5.8	-----
Cod liver oil <sup>5</sup> .....	15	-----	15.0	-----
Calcium carbonate <sup>6</sup> .....	3	-----	-----	-----
Dilute hydrochloric acid (U. S. P.) (90 drops) <sup>7</sup> .....	-----	-----	-----	-----
Sirup iodid of iron (U. S. P.) (2 drops) <sup>6</sup> .....	-----	-----	-----	-----
Total nutrients .....	-----	75.9	72.6	285.1
Nutrients per 1,000 calories .....	-----	36.1	34.6	137.6

<sup>1</sup> Whole maize meal sifted in the kitchen and made into corn bread and mush.<sup>2</sup> Served in place of the variable dry legume ration of the institution.<sup>3</sup> From canned tomatoes, pressed through a cloth.<sup>4</sup> Lean muscle free of visible fat.<sup>5</sup> Given in place of the variable butter or margarine ration of the institution.<sup>6</sup> Given to improve the mineral composition of the diet.<sup>7</sup> Given with a view of correcting a possible gastric anacidity so common in pellagrins.

TABLE 4.—Approximate composition of "yeast vitamine"-supplemented diet offered daily to each of a group of colored female pellagrins during the period up to June 22, 1925

[Total calories: 2,104]

Diet		Nutrients			
Articles of diet	Quantity	Protein	Fat	Carbohydrate	
	Grams	Grams	Grams	Grams	
Basic:					
Corn meal <sup>1</sup> .....	140	11.8	6.3	103.6	
Corn grits.....	48	4.4	.9	36.2	
Wheat flour.....	70	8.0	.7	52.5	
Rice.....	28	2.2	.1	22.1	
Cowpeas ( <i>Vigna sinensis</i> ) <sup>2</sup> .....	14	3.0	.2	8.5	
Sirup.....	90			63.9	
Lard.....	42		42.0		
Vegetable cooking oil.....	28		28.0		
Tomato juice <sup>3</sup> .....	130				
Supplemental:					
Yeast vitamine (Harris) powder <sup>4</sup> .....	15				
Cod liver oil <sup>5</sup> .....	15		15.0		
Calcium carbonate <sup>6</sup> .....	3				
Dilute hydrochloric acid (U. S. P.) (90 drops) <sup>7</sup> .....					
Sirup iodid of iron (U. S. P.) (2 drops) <sup>8</sup> .....					
Total nutrients.....		20.4	93.2	286.8	
Nutrients per 1,000 calories.....		14.0	44.4	136.6	

<sup>1</sup> Whole maize meal sifted in the kitchen and made into corn bread and mush.<sup>2</sup> Served in place of the variable dry legume ration of the institution.<sup>3</sup> From canned tomatoes, pressed through a cloth.<sup>4</sup> A commercial preparation.<sup>5</sup> Given in place of the variable butter or margarine ration of the institution.<sup>6</sup> Given to improve the mineral composition of the diet.<sup>7</sup> Given with a view of correcting a possible gastric anacidity so common in pellagrins.

TABLE 5.—Approximate composition of "yeast vitamine"-supplemented diet offered daily to each of a group of colored female pellagrins during the period June 26, 1925–December 31, 1925. (The period June 23 to June 26 was a period of change from the diet shown in Table 4 to that shown here)

[Total calories: 2,118]

Diet		Nutrients			
Articles of diet	Quantity	Protein	Fat	Carbohydrate	
	Grams	Grams	Grams	Grams	
Basic:					
Cornmeal <sup>1</sup> .....	100	16.0	8.7	140.6	
Wheat flour.....	70	8.0	.7	52.5	
Rice.....	14	1.1	.0	11.1	
Cowpeas ( <i>Vigna sinensis</i> ) <sup>2</sup> .....	28	6.0	.4	17.0	
Sirup.....	90			63.9	
Lard.....	42		42.0		
Vegetable cooking oil.....	28		28.0		
Tomato juice <sup>3</sup> .....	130				
Supplemental:					
Yeast vitamine (Harris) powder <sup>4</sup> .....	15				
Cod-liver oil <sup>5</sup> .....	15		15.0		
Calcium carbonate <sup>6</sup> .....	3				
Dilute hydrochloric acid (U. S. P.) (90 drops) <sup>7</sup> .....					
Sirup iodid of iron (U. S. P.) (2 drops) <sup>8</sup> .....					
Total nutrients.....		31.1	94.8	285.1	
Nutrients per 1,000 calories.....		14.8	45.1	135.8	

<sup>1</sup> Whole maize meal sifted in the kitchen and made into corn bread and mush.<sup>2</sup> Served in place of the variable dry legume ration of the institution.<sup>3</sup> From canned tomatoes pressed through a cloth.<sup>4</sup> A commercial preparation.<sup>5</sup> Given to improve the mineral composition of the diet.<sup>6</sup> Given with a view of correcting a possible gastric anacidity so common in pellagrins.<sup>7</sup> Given in place of the variable butter or margarine ration of the institution.

TABLE 6.—Composition of experimental black tongue producing diet No. 123.<sup>1</sup> On this diet recognizable signs of black tongue begin to appear in from one to three or four months. When adequately supplemented with "yeast vitamine" powder, Seidell's activated solid, autoclaved yeast, etc., black tongue does not develop. See also Table 8

[Total calories: 2,400]

Diet		Nutrients		
Articles of diet	Quantity	Protein	Fat	Carbohydrate
	Grams	Grams	Grams	Grams
Cornmeal <sup>2</sup> .....	400	33.6	18.8	246.0
Cowpeas ( <i>Vigna sinensis</i> ) <sup>3</sup> .....	50	10.7	.7	30.4
Casein <sup>4</sup> (purified).....	60	52.0	-----	-----
Sucrose.....	32	-----	-----	32.0
Cottonseed oil.....	30	-----	30.0	-----
Cod-liver oil.....	15	-----	15.0	-----
Sodium chlorid <sup>5</sup> .....	10	-----	-----	-----
Calcium carbonate <sup>6</sup> .....	3	-----	-----	-----
Total nutrients.....	-----	96.3	64.5	358.4
Nutrients per 1,000 calories.....	-----	40.3	26.9	149.3

<sup>1</sup> The cornmeal, cowpeas, and salt are stirred into water and cooked one and one-half hours. Then the other ingredients are well stirred in, the total weight being brought to 2,400 grams with water (so that one gram equals one calorie) and this finished mixture is served to the dog *ad libitum*.

<sup>2</sup> This is whole maize meal sifted as for human consumption.

<sup>3</sup> The variety known as the California black-eye pea.

<sup>4</sup> Leached for a week in daily changes of acidulated water, after McCollum.

<sup>5</sup> The salt and calcium carbonate may be replaced by 22 grams of the well-known Osborne and Mendel salt mixture.

TABLE 7.—Composition of diet No. 149,<sup>1</sup> a slight modification of rat ration, "Chart 5, Lot 568," of McCollum, Simmonds, and Pitz (*J. Biol. Chem.*, 1916, vol. 28, p. 160), and on this authority considered complete for normal growth of the rat to the usual adult size. In the dog it permits of the development of black tongue; for this animal the diet is too low in factor P-P

[Total calories: 2,354]

Diet		Nutrients		
Articles of diet	Quantity	Protein	Fat	Carbohydrate
	Grams	Grams	Grams	Grams
Entire corn meal.....	450	245.5	222.5	228.0
Casein <sup>2</sup> (purified).....	90	78.8	-----	-----
Salts <sup>3</sup> .....	22	-----	-----	-----
Cod liver oil.....	8	-----	8.0	-----
Butterfat.....	30	-----	30.0	-----
Total nutrients.....	-----	124.3	60.5	328.0
Nutrients per 1,000 calories.....	-----	52.9	25.7	139.6

<sup>1</sup> The cornmeal is stirred into water and boiled one and one-half hours, after which the other ingredients are stirred in and the weight of the whole is brought up to 2,354 grams with water (so that one gram equals one calorie) and the mixture then fed *ad libitum*.

<sup>2</sup> The factors used are those given by Henry & Morrison ("Feeds and Feeding") for dent corn.

<sup>3</sup> Leached for a week in daily changes of acidulated water, after McCollum.

<sup>4</sup> McCollum's salt mixture 185.

TABLE 8.—Composition of diet No. 196.<sup>1</sup> Essentially the same as diet No. 123 (Table 6), except that the casein of the latter is replaced by lean beef. Unlike diet No. 123, this has well-marked black-tongue-preventive action, thus indicating that the lean of fresh beef contains factor P-P

[Total calories: 2,400]

Diet		Nutrients		
Articles of diet	Quantity	Protein	Fat	Carbo- hydrate
	Grams	Grams	Grams	Grams
Cornmeal <sup>2</sup> .....	400	33.6	18.8	296.0
Cowpeas ( <i>Vigna sinensis</i> ) <sup>3</sup> .....	50	16.7	.7	30.4
Beef <sup>4</sup> (lean round).....	233	52.3	6.8	.....
Cane sugar.....	32	.....	.....	32.0
Cottonseed oil.....	23	.....	23.0	.....
Cod liver oil.....	15	.....	15.0	.....
Sodium chlorid.....	10	.....	.....	.....
Calcium carbonate.....	3	.....	.....	.....
Total nutrients.....	.....	96.6	64.3	358.4
Nutrients per 1,000 calories.....	.....	40.2	26.7	149.3

<sup>1</sup> The cornmeal, cowpeas, and salt are stirred into water and cooked one and one-half hours. Then the other ingredients are well stirred in, the total weight being brought to 2,400 grams with water (so that one gram equals one calorie) and this finished mixture is fed *ad libitum*.

<sup>2</sup> This is whole maize meal sifted as for human consumption.

<sup>3</sup> The variety known as the California black-eye pea.

<sup>4</sup> Fresh round steak, freed of gristle, tendon and visible fat, run through a meat chopper.

TABLE 9.—Composition of rat diets used in the experiments illustrated in charts 1 to 5

Diet No.	Purified casein <sup>1</sup>	Salt mixture <sup>2</sup>	A cotton- seed fat <sup>3</sup>	Cod liver oil	Corn starch	Alcoholic extract of corn meal	Auto- claved yeast <sup>4</sup>	Dried beef <sup>5</sup>
206.....	20	4	3	2	71	.....	.....	.....
218.....	20	4	3	2	31	40	.....	.....
219A.....	20	4	3	2	46	5	.....	20
227.....	20	4	3	2	44	.....	27	.....
228.....	20	4	3	2	22	40	0	.....
238B.....	20	4	3	2	65	6	.....	.....
238C.....	20	4	3	2	59	12	.....	.....
239.....	20	4	3	2	31	.....	40	.....
243E.....	20	4	3	2	58	5	8	.....
243F.....	20	4	3	2	56	5	10	.....

<sup>1</sup> After leaching for a week in daily changes of acidulated water (after McCollum), extracted, by intermittent percolation, with ether, followed by 95 per cent alcohol.

<sup>2</sup> Osborne and Mendel J. Biol. Chem., 1919 (37): 572.

<sup>3</sup> Crisco brand.

<sup>4</sup> In steam autoclave at 15 pounds pressure for two and one-half hours.

<sup>5</sup> Fresh round steak, trimmed free of visible fat, ground in meat chopper and dried in a current of warm air, then ground to a powder.

#### ACKNOWLEDGMENTS

We must again express our warmest appreciation of the cooperation extended to us by the Board of Trustees, the Superintendent, the Clinical Director, the Staff, and other officers of the Georgia State Sanitarium.



## QUANTITATIVE STUDIES OF BACTERIAL POLLUTION AND NATURAL PURIFICATION IN THE OHIO AND THE ILLINOIS RIVERS<sup>1</sup>

By J. K. HOSKINS, Sanitary Engineer, United States Public Health Service

The United States Public Health Service has been engaged for some years in studies of various phenomena concerned with the pollution and natural purification of streams. One general purpose of these studies has been to evaluate the intensity of bacterial pollution to be expected from known populations discharging sewage into streams of known discharge and velocity of flow. With this end in view detailed bacteriological data have been collected from two streams of quite different types, the Ohio and Illinois Rivers. Published observations on the Ohio River<sup>2</sup> covered a period of three years, and those of the Illinois River were continued for a complete year, so that in each instance information was obtained throughout an entire seasonal cycle.

From a consideration of the data of these studies some general tendencies in bacterial changes are indicated, which may be of assistance to sanitary engineers in forming an estimate of the effect, both immediate and prolonged, of adding sewage, from a definite population, to a watercourse of determined hydrometric characteristics.

The degree of bacterial pollution contributed by cities, about which information is most generally desired, may be separated into two principal cases. The first is concerned with the intensity of bacteria that will result in the stream in the zone of highest pollution below the point at which the sewage is discharged. The second and sometimes more important consideration is the proportion of such contributed bacteria that will remain in the stream at a known distance, or time of flow, below the point at which they were added.

### DISCUSSION

Due to fluctuations in discharge and inflow of all streams, the bacterial concentration resulting from a constant rate of contribution may vary widely. It is essential therefore, for a comparative study of results that not only the concentration of bacteria be considered, but that the actual quantities of organisms be taken into account as well. The quantities of bacteria present in, or added to, a watercourse can be expressed most conveniently in terms of a unit in which is combined the elements of volume, time, and bacterial concentration. Such a unit, called the "quantity unit," has been used for this purpose. The quantity unit may be defined to be the

<sup>1</sup> The last of four papers comprising a symposium on stream pollution which was presented at the meeting of the sanitary engineering of the American Society of Civil Engineers at Cincinnati, Ohio, April 23, 1925, and published in the Proceedings of the Society, Vol. LI, No. 9, November, 1925. The other papers were published in Public Health Reports for January 15, February 5, and February 12, 1926, respectively.

<sup>2</sup> A study of the Pollution and Natural Purification of the Ohio River, Part II: Report on Surveys and Laboratory Studies. Public Health Bulletin No. 143. U. S. Public Health Service Washington, D. C. 1924

product of the discharge of 1 cubic foot per second and a concentration of 1,000 bacteria per cubic centimeter. Hence the number of quantity units of bacteria in a stream equals

$$\frac{\text{Discharge, in second-feet} \times \text{bacteria per cubic centimeter}}{1,000}$$

Obviously, this unit is convertible into bacterial numbers per unit of time, such as the day. Thus, an average of 1,000 bacteria per cubic centimeter in a flow of 1 second-foot for 1 day, or 86,400 seconds, is equivalent to 28,317 (=number of cubic centimeters in 1 cubic-foot)  $\times$  1,000  $\times$  86,400, or 2,446,589,000,000 bacteria per day in one quantity unit.

#### IMMEDIATE POLLUTION

In observations of the effect of pollution by sewered communities, it has been noted consistently that the zone of greatest bacterial density in the receiving stream does not occur immediately below the sewer outfalls, but at a point 10 to 30 hours downstream from the place where such pollution is added. Moreover, the location of this maximum zone seems to be influenced by seasonal temperatures, being farthest downstream during the winter months. Whether an actual multiplication of organisms in the stream takes place until this maximum is reached, or whether the observed increase in bacterial numbers is due to the physical separation of organic matter has not been definitely determined, although the evidence seems to point to the former assumption as the most logical explanation.

Observations extending over the entire seasonal cycle have been made of the numbers of bacteria per capita added to the stream by the sewage pollution from Cincinnati, Ohio, Louisville, Ky., Chicago, and Peoria, Ill. In each instance the numbers appear to vary with seasonal temperature conditions, being considerably greater in summer than in winter. These seasonal fluctuations are shown for each of the four cities, both in terms of quantity units per capita and in billions of bacteria per capita per day, in Table 5, wherein the values for summer, for winter, and the averages for the entire year are presented.

By combining the yearly per capita contributions of gelatin, agar, and *B. coli* counts, respectively, of all the four cities, a general average is obtained which may be considered to be roughly representative of the annual average quantity units of the respective types of bacteria contributed to these streams per capita of the sewered population.

The variation from month to month in the numbers of bacteria contributed is, in general, reasonably consistent, increasing quite rapidly to a maximum in June or July and declining again gradually until October and then more rapidly to the lower numbers found throughout the winter season. These changes in the contribution of

*B. coli* from each of the four cities are shown in more detail in Table 6, in which the figures represent the ratio of the count each month to the annual average, the latter being taken as equivalent to 100. The averages of the ratios for these four cities for corresponding months represent what might be considered a general measure of the degree of change from month to month in numbers of *B. coli* contributed by urban sewered population. Similar averages have been derived for the monthly variations in numbers of bacteria growing on gelatin at 20° C. in 48 hours and an agar at 37° C. in 24 hours, all of which are assembled in Table 7 and plotted in Figure 11. For purposes of comparison the average monthly river water temperatures are also given in Tables 6 and 7.

TABLE 5.—Seasonal changes in numbers of bacteria added to streams by sewered populations of Cincinnati, Ohio, Louisville, Ky., and Chicago and Peoria, Ill.

Quantity units of bacteria per capita <sup>1</sup>				Billions of bacteria per capita per day		
Added by—	Gelatin	Agar	<i>B. coli</i>	Growing on—		
				Gelatin at 20° C. for 48 hours	Agar at 37° C. for 24 hours	<i>B. coli</i>
Chicago:						
Summer.....	10.148	10.485	0.175	24.828	25.652	428
Winter.....	1.740	.346	.017	4.257	.847	42
Year.....	6.252	4.566	.094	15.296	11.171	230
Peoria:						
Summer.....	6.447	10.480	.0912	15.773	25.640	231
Winter.....	.869	3.125	.0577	2.126	7.646	141
Year.....	4.518	7.894	.0763	11.054	10.313	187
Cincinnati:						
Summer.....	5.764	7.486	.238	14.102	18.314	583
Winter.....	1.058	.410	.0486	2.588	1.002	119
Year.....	4.811	5.009	.1463	11.770	12.256	358
Louisville:						
Summer.....	5.544	6.475	.1189	13.564	15.842	391
Winter.....	3.008	.3707	.0789	7.359	.907	193
Year.....	4.431	3.251	.0907	10.841	7.962	222
Averages:						
Summer.....	6.976	8.731	.1365	17.067	21.362	383
Winter.....	1.069	1.063	.0507	4.093	2.000	124
Year.....	5.003	5.181	.1018	12.240	12.676	240

<sup>1</sup> One quantity unit=2,446,589,000,000 bacteria per day.

TABLE 6.—*Monthly variation in water temperature and in numbers of B. coli added to streams by sewered populations of cities*

[Average for year = 100]

Month	Cincinnati, Ohio		Louisville, Ky.		Chicago, Ill.		Peoria, Ill.		Average	
	Water temperature	Bacteria, percentage of annual average	Water temperature	Bacteria, percentage of annual average	Water temperature	Bacteria, percentage of annual average	Water temperature	Bacteria, percentage of annual average	Water temperature	Bacteria, percentage of annual average
	° C.		° C.		° C.		° C.		° C.	
January.....	2.4	29	2.6	60	0.3	12	0.6	2	1.5	26
February.....	3.3	39	3.3	109	1.0	16	.4	77	2.0	60
March.....	4.1	32	4.3	91	3.7	13	4.9	228	4.3	91
April.....	10.9	53	11.3	69	8.6	33	9.6	13	10.1	42
May.....	17.9	93	18.5	123	15.0	136	18.0	158	17.5	128
June.....	23.2	116	23.2	79	20.9	200	24.6	494	23.0	201
July.....	26.2	185	26.8	174	22.4	393	25.8	51	25.3	222
August.....	25.5	151	26.3	122	23.8	110	25.5	24	25.3	102
September.....	22.4	111	23.4	174	20.1	123	23.5	64	22.3	118
October.....	16.7	232	17.5	108	13.8	98	14.5	66	15.6	131
November.....	9.3	84	11.0	20	7.4	35	7.6	23	8.8	42
December.....	3.9	56	5.0	66	3.2	30	4.2	0	4.1	38
Year.....		100		100		100		100		100

TABLE 7.—*Seasonal variation in numbers of bacteria contributed to streams by sewered populations*

(Yearly average = 100)

Month	Temperature	Percentage of annual average		
		Gelatin count	Agar count	B. coli
	° C.			
January.....	1.5	27	13	26
February.....	2.0	52	20	60
March.....	4.3	31	22	91
April.....	10.1	77	32	42
May.....	17.5	162	107	128
June.....	23.0	186	227	222
July.....	25.3	115	168	201
August.....	25.3	134	184	102
September.....	22.3	132	161	118
October.....	15.6	155	166	131
November.....	8.8	91	69	42
December.....	4.1	59	27	38
Year.....		100	100	100

If these average values as derived are representative of the bacterial changes in streams in general, as brought about by sewage pollution, they supply a ready means of estimating the maximum concentration of bacteria to be expected in a stream of known discharge resulting from the sewage of a known population. The bacteria per cubic centimeter thus added can be computed at once by the relationship:

$$\left. \begin{array}{l} \text{Bacteria per cubic} \\ \text{centimeter added} \end{array} \right\} = \frac{\text{Population} \times \text{quantity units per capita}}{\text{Discharge, in thousands of second-feet}}$$

As an example, the average yearly numbers per cubic centimeter of *B. coli* contributed by Cincinnati (with a sewered population of

494,300) to the Ohio River, where the mean annual flow is 97,500 second-feet, is

$$\frac{494,300 \times 0.1018}{97.5} = 516$$

Similarly, the concentration for any season or month may be estimated by applying to the yearly average the proper seasonal factor

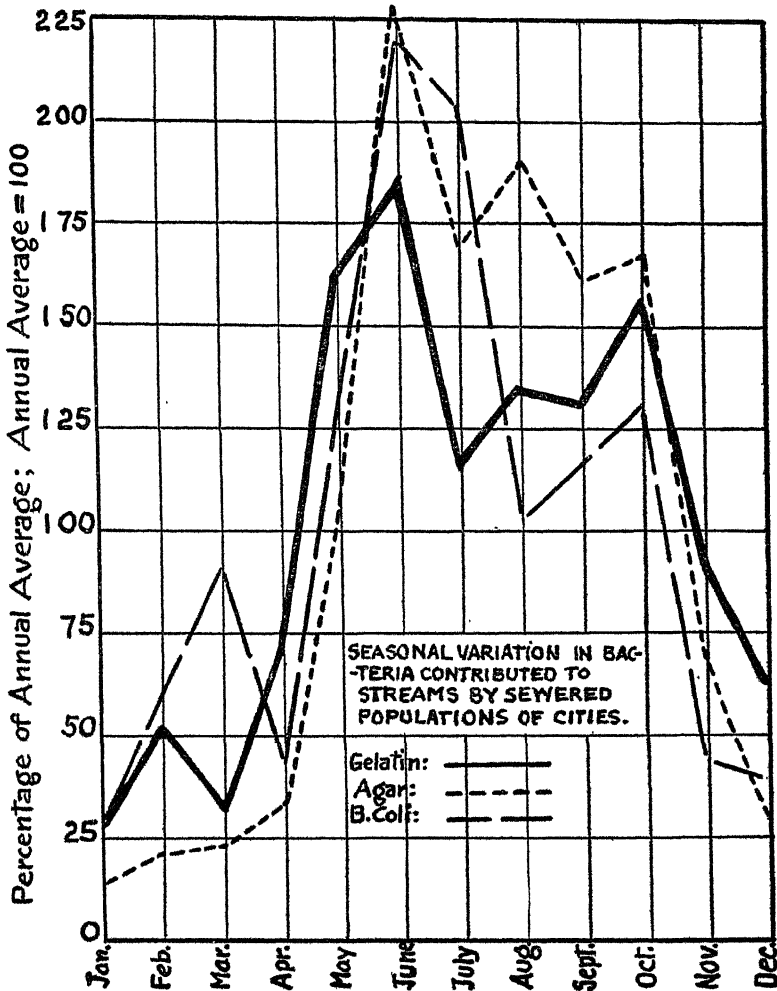


FIG. 11

given in Table 7. Thus, in July, when the discharge of the Ohio River is 19,000 second-feet, the estimated concentration of *B. coli* per cubic centimeter contributed by Cincinnati would be

$$\frac{494,300 \times 0.1018 \times 2.01}{19,000} = 5,320$$

Applying this method of estimation to the four cities of Cincinnati, Louisville, Chicago, and Peoria, it is possible to compare directly the computed concentrations of bacteria to be expected in each case with the densities actually observed to have resulted from the sewage pollution contributed. Such a comparison of computed and observed concentrations of *B. coli* is presented in Table 8, together with the average monthly rates of stream discharge and other related data. It will be noted that, although the estimated concentrations for some individual months differ quite widely from those actually observed, yet in the main the two sets of values are comparable and generally of the same degree of magnitude. Bearing in mind that the actual enumeration of *B. coli* is subject to considerable variation, it would appear that the use of the formula as a rough working model may be justified.

TABLE 8.—Comparison of computed and observed concentrations of *B. coli* contributed by sewered populations

$$(B. coli \text{ per cubic centimeter (computed value)} = \frac{\text{Population} \times 0.1018 \times \text{factor}}{\text{Discharge (thousands of second-feet)}})$$

Month	Temperature range	Factor	Cincinnati, <sup>1</sup> Ohio, (population, 494,300)			Louisville, <sup>2</sup> Ky., (population, 179,800)			Chicago, Ill., (population, 2,834,000)			Peoria, Ill (population, 76,500)		
			B. coli			B. coli			B. coli			B. coli		
			Discharge	Computed	Actual	Discharge	Computed	Actual	Discharge	Computed	Actual	Discharge	Computed	Actual
° C.	1,000 sec.-ft.	Per c. c.	Per c. c.	1,000 sec.-ft.	Per c. c.	Per c. c.	1,000 sec.-ft.	Per c. c.	Per c. c.	1,000 sec.-ft.	Per c. c.	Per c. c.		
January.....	1.5	0.26	195.8	67	106	109.0	44	91	8.31	9,030	3,890	20.50	99	4
February.....	2.0	.60	212.7	142	131	221.0	50	80	8.38	20,600	5,200	10.16	290	265
March.....	4.3	.91	149.7	308	156	192.0	87	77	8.74	30,000	4,050	23.40	303	541
April.....	10.1	.42	165.5	128	232	297.0	26	38	8.48	14,300	10,400	47.80	68	15
May.....	17.5	1.28	92.9	693	720	147.0	159	136	8.91	41,400	40,500	26.40	409	358
June.....	23.0	2.22	68.3	1,040	1,230	28.8	1,410	445	9.37	68,400	56,800	10.90	1,020	1,622
July.....	25.3	2.01	47.1	2,150	2,530	23.1	1,590	1,230	8.85	65,500	118,000	11.70	1,340	241
August.....	25.3	1.02	38.5	1,330	2,830	18.3	1,020	1,090	8.52	34,500	34,500	10.19	786	131
September.....	22.3	1.18	29.4	2,020	2,720	20.9	1,030	1,360	8.23	41,400	39,600	11.90	772	207
October.....	15.6	1.31	37.2	1,770	4,000	22.4	1,070	786	8.51	44,300	30,500	12.90	790	284
November.....	8.8	.42	29.5	716	2,070	12.3	625	340	8.87	13,700	10,400	16.10	203	78
December.....	4.1	.38	100.3	191	408	96.5	72	111	8.67	12,600	9,200	25.10	118	-----
Year.....	-----	1.00	-----	929	1,530	-----	599	432	-----	33,000	30,300	-----	517	349

<sup>1</sup> Averages for three years, 1914, 1915, and 1916.

<sup>2</sup> Data for 1914.

#### RATES OF DECREASE IN BACTERIAL POLLUTION

Quite extensive observations of the decrease of bacteria in polluted waters indicate that such changes follow a fairly regular course, modified by variations in environment, such as temperature and other factors, but yet having an orderly arrangement of reduction. Just what agency is primarily responsible for the death of such bacteria has not been definitely determined. However, there is considerable

evidence suggesting that plankton activity rather than lack of food supply is the dominant influence in bacterial diminution.<sup>3</sup>

A simple and direct method for determining the rates of bacterial decrease in streams, if it were practicable, would be to observe the changes occurring in stored samples of the water under consideration. Unfortunately, the decreases in such stored samples do not correspond invariably with the natural rates occurring in the stream. Long-continued efforts—still in progress—to place the study of bacterial death rates on such an experimental basis, have thus far not been successful. Resort must then be made to the observation of natural purification occurring in streams. Under such conditions, all modifying factors are impossible of accurate control and in many cases

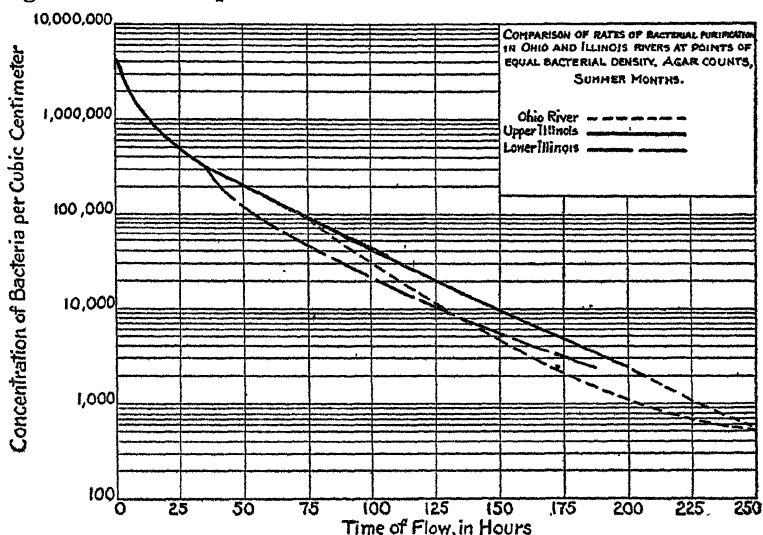


FIG. 12

corrections for them can be applied only in an approximate manner. Therefore, rates of decrease thus determined must necessarily be interpreted with these limitations clearly understood.

Studies of natural purification of the Ohio River<sup>4</sup> indicate that changes in the bacterial content between Cincinnati and Louisville are quite orderly and that the rates of decrease can be represented in a general way by empirical curves and formulas. Similar observations on the Illinois River have tended to confirm this conclusion and have indicated that such changes may be of general occurrence, rather than confined to these two streams. The rates of decrease in all instances are not directly comparable, however, and, as stated in the Public

<sup>3</sup> The effect of plankton animals upon bacterial death rates. By W. C. Purdy and C. T. Butterfield. *American Journal of Public Health*, Vol. VIII, No. 7, July, 1918, pp. 499-505.

<sup>4</sup> Presented in detail in *Public Health Bulletin* No. 143.

Health Bulletin referred to, these rates must be considered as approximate only, since they apparently are modified by other factors, such as density or concentration, and perhaps, also, by relative age or staleness of the sewage contributed. It is certain, at least, that the rates of bacterial decrease from the point of maximum concentration in the Ohio River are quite different from those observed in the Illinois. However, when the disparity in initial concentrations is taken into account and comparisons are made at points of equal bacterial density, the rates coincide much more closely. This condition is perhaps best illustrated by the summer rates of decrease in bacteria growing on agar at  $37^{\circ}$  C., as observed in the Ohio, in the Illinois River below Chicago, and, again, below Peoria, the base data of which

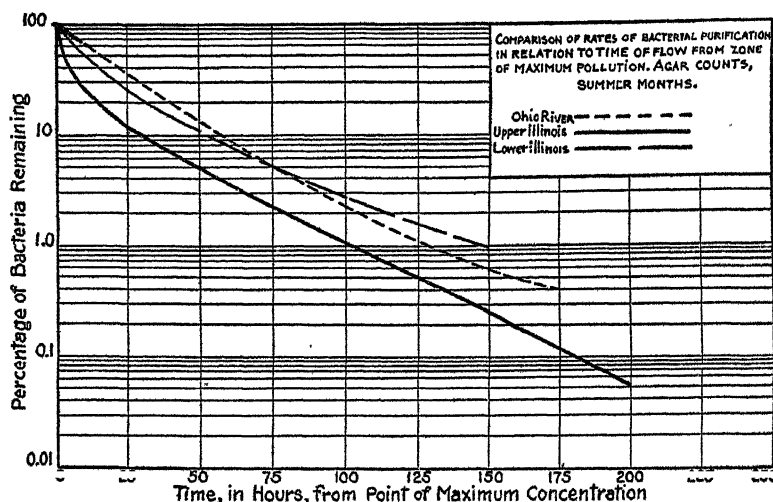


FIG. 13

are given in Table 9. Figure 12 shows these rates plotted from the same origin, and Figure 13 shows the same curves shifted so that at the points of maximum concentration they coincide with the corresponding density of the upper Illinois River curve.

Although such an adjustment according to maximum density brings the rates into closer harmony, characteristic preliminary decreases, probably due to other unknown factors, are still evident in each of the curves. It may finally prove to be impracticable, therefore, to develop a composite expression or curve defining accurately the general rate of bacterial decrease in all streams. A series of such expressions or curves, taking into consideration various modifying factors, may be found to portray best the actual rates of most probable change.



TABLE 9.—*Decrease in agar counts, summer season*

[As read from curves]

Time from maximum, in hours	Ohio River		Upper Illinois River		Lower Illinois River	
	Per cubic centimeter	Percentage of maximum	Per cubic centimeter	Percentage of maximum	Per cubic centimeter	Percentage of maximum
0.....	99,300	100.00	3,890,000	100.000	248,000	100.00
10.....	66,890	67.26	1,180,000	30.300	121,000	48.70
20.....	46,100	46.37	940,000	10.450	75,000	30.20
30.....	30,500	30.71	410,000	10.550	52,000	21.00
40.....	20,800	20.90	275,000	7.070	38,000	15.30
50.....	14,200	14.31	197,000	5.060	28,200	11.40
70.....	6,840	6.89	106,000	2.720	16,500	6.65
100.....	2,540	2.56	43,000	1.100	7,800	3.14
125.....	1,290	1.30	20,500	.626	4,200	1.69
150.....	755	.76	9,600	.247	2,150	.87
175.....	497	.50	4,500	.116		
200.....	357	.36	2,150	.055		

However, the decreases in bacterial numbers are in a broad way quite similar, and it is possible, from the available data collected, to indicate the general trend of such decreases. Such a general rate of purification, if applicable to a specific case, may assist in forming an estimate of the relative numbers of bacteria that may be expected to survive in the stream after any definite interval of time.

TABLE 10.—*Decreases in B. coli from various maximum concentrations, in relation to time of flow, summer season*

Ohio River Curve <sup>1</sup>		Upper Illinois River		Lower Illinois River	
Time from maximum, in hours	<i>B. coli</i> per cubic centimeter	Time from maximum, in hours	<i>B. coli</i> per cubic centimeter	Time from maximum, in hours	<i>B. coli</i> per cubic centimeter
0.....	2,280	0	65,600	0	3,550
10.....	1,450	10	22,200	10	1,300
20.....	934	20	11,800	20	620
30.....	590	30	6,700	30	340
40.....	385	40	4,100	40	190
70.....	105	70	1,100	70	40
100.....	32	100	385	100	11
125.....	14	125	170	125	4
150.....	8	150	76		
175.....	5	175	34		
200.....	4	200	15		

<sup>1</sup> Table No. 125, Public Health Bulletin No. 143.

Such general rates of decrease for *B. coli*, under both summer and winter seasonal conditions, have been outlined by the data of the Ohio and Illinois River studies, and are assembled in Tables 10, 11, and 12. The rates of decrease for the Illinois River were derived from observations on the upper Illinois River in which the sewage of Chicago is the agency of pollution, whereas in the lower Illinois River, the major pollution is contributed by the metropolitan district of

Peoria. Daily observations at successive downstream sampling stations were averaged over both the summer and winter seasons, and smooth curves defining the rates of natural purification were drawn through these experimentally determined results, plotted on semi-logarithmic paper. The method of obtaining the Ohio River rates of decrease is described in Public Health Bulletin No. 143 previously referred to. In addition to these general curves of the Ohio, data defining rates of purification at different maximum densities of bacterial content are presented in Table No. 114 of that publication, wherein are presented observations of bacterial numbers at successive sampling stations grouped according to volume of discharge of the river. By grouping these data according to initial concentration and by times from origin, average densities for each group have been obtained at various average intervals of time in hours from the point of maximum density. The results of such grouping for different initial densities are also presented in Tables 10, 11, and 12 for summer and winter, respectively, and define average rates of decrease of *B. coli* starting from the various maximum concentrations.

TABLE 11.—Decreases in *B. coli* from various maximum concentrations, in relation to time of flow, summer season

[Ohio River observations grouped by initial concentrations <sup>1</sup>]

Time from maximum, in hours	<i>B. coli</i> per cubic centimeter	Time from maximum, in hours	<i>B. coli</i> per cubic centimeter	Time from maximum, in hours	<i>B. coli</i> per cubic centimeter	Time from maximum, in hours	<i>B. coli</i> per cubic centimeter	Time from maximum, in hours	<i>B. coli</i> per cubic centimeter	Time from maximum, in hours	<i>B. coli</i> per cubic centimeter	Time from maximum, in hours	<i>B. coli</i> per cubic centimeter	Time from maximum, in hours	<i>B. coli</i> per cubic centimeter
0	8,237	0	4,623	0	2,557	0	1,684	0	1,211	0	607	0	239	0	165
				4.7	1,746			4.6	1,091	2.3	325	3.8	138		77
			7.3	1,560	7.3	961	8.9	728	6.0	286	6.3	100			
			11.5		11.5	1,264					12.5	70			
17.7	1,460	22.8	1,953					23.5	336	23.6	417			18.2	70
24.9	1,548	29.2	951			25.9	197			27.3	174				
28.6	1,359	30.4	604			38.2	178	38.7	390						
		43.5	450			45.1	402								
			49.4	325	45.1	402									
			62.8	429	64.2	88	35.1	73	30.8	98					
						64.5	70								
110	94	98	122	118	21	101	35								
		131	328	136	18										
		255	5	159	9										

<sup>1</sup> Data from Table No. 114, Public Health Bulletin No. 143.

TABLE 12.—Decreases in *B. coli* from various maximum concentrations, in relation to time of flow, winter season

Ohio River curve <sup>1</sup>		Upper Illinois curve		Lower Illinois curve		Ohio River observations grouped by initial concentrations <sup>2</sup>					
Time from maximum, in hours	<i>B. coli</i> per cubic centimeter	Time from maximum, in hours	<i>B. coli</i> per cubic centimeter	Time from maximum, in hours	<i>B. coli</i> per cubic centimeter	Time from maximum, in hours	<i>B. coli</i> per cubic centimeter	Time from maximum, in hours	<i>B. coli</i> per cubic centimeter	Time from maximum, in hours	<i>B. coli</i> per cubic centimeter
0	260	0	7,200	0	180	0	368	0	231	0	173
						4.6	62	3.4	115	2.3	92
						7.4	133	6.6	98	6.0	86
10	156	10	4,120	10	111	12.8	175			12.5	130
										18.8	66
								20.5	117	21.6	70
25	78	25	2,500	25	68			26.1	40	27.3	70
								33.9	86		
						38.3	46				
						44.3	54			49.7	41
50	31	50	1,400	50	37	59.3	25	64.2	33	51.6	35
75	17	75	890	75	22	83.3	18				
100	12	100	610	100	14	104	8				
125	9	125	422			131	11				
		150	300								
		175	210								
		200	150								

<sup>1</sup> Table No. 127, Public Health Bulletin No. 143.<sup>2</sup> Data from Table No. 114, Public Health Bulletin No. 143.

If these data are plotted on semilogarithmic paper, in which the concentrations of *B. coli* are plotted as ordinates on the logarithmic scale and the times from maximum concentration as abscissas on the plain scale, it will be observed that these points define, in a general way, fairly smooth curves, all of which have the same general trend. It may be noted also that the curves of winter purification are of much flatter slope than are those of summer, indicating that natural purification proceeds at much slower rates during cold weather. It is entirely possible, therefore, regardless of the generally lower numbers of bacteria contributed during the winter season, that the critical or most severe period of bacterial pollution to be expected from a given sewage discharged upstream may occur during the winter, rather than during the summer. This is, of course, the reverse of what would be expected of the critical oxygen depletion condition resulting from the same sewage pollution.

Having obtained the general rates of decrease in *B. coli* for various initial concentrations, it is possible to interpolate intermediate rates of decrease, starting from definite initial concentrations. Such interpolated rates should indicate, in a general way, the numbers of *B. coli* that may be expected to survive after definite intervals of time have elapsed beyond the point of greatest bacterial density in the stream. Such rates of decrease are for convenience placed in tabular form for ready reference in Tables 13 and 14, Table 13 repre-

senting summer conditions and defining numbers of bacteria remaining after definite intervals of time, starting from various densities at the maximum point, and Table 14 presenting the same data for winter months.

TABLE 13.—Numbers of *B. coli* per cubic centimeter remaining after stated times of flow from point of maximum concentration, summer season

Initial maximum concentration of <i>B. coli</i>	<i>B. coli</i> per cubic centimeter remaining after interval of—								
	10 hours	25 hours	50 hours	75 hours	100 hours	125 hours	150 hours	175 hours	200 hours
75,000.....	30,000	9,800	2,900	1,000	420	190	84	37	17
60,000.....	20,000	7,900	2,300	800	350	150	70	32	15
40,000.....	14,000	5,900	2,000	600	270	120	57	27	14
20,000.....	7,600	3,000	1,070	420	190	94	47	25	13
10,000.....	4,000	1,600	640	270	130	68	36	20	12
5,000.....	2,300	1,100	410	170	78	42	24	15	12
1,000.....	440	210	80	30	13	5			
500.....	260	130	70	25	8				
100.....	40	20	12						

TABLE 14.—Numbers of *B. coli* per cubic centimeter remaining after stated times of flow from point of maximum concentration, winter season

Initial maximum concentration of <i>B. coli</i>	<i>B. coli</i> per cubic centimeter remaining after interval of—								
	10 hours	25 hours	50 hours	75 hours	100 hours	125 hours	150 hours	175 hours	200 hours
10,000.....	6,000	3,500	2,000	1,200	840	600	420	300	200
5,000.....	3,000	1,800	960	600	400	300	200	140	100
1,000.....	520	280	140	80	54	38	26		
500.....	240	120	60	32	21	15			
100.....	62	40	20	12	7				

However, before such estimates can be accepted with complete confidence it is obviously necessary that they be checked by observations on a considerable number of streams of different physical characteristics. The empirical results herein presented outline what the observations thus far have indicated to take place and endeavor to suggest their practical application. The explanation of the phenomena concerned in such changes must await additional research.

#### SUMMARY

Quite extended observations of the pollution of Illinois and Ohio Rivers have indicated that the numbers of bacteria contributed per capita by the sewered populations of various cities are reasonably constant; these numbers change, however, with seasonal temperature, being much greater in summer than in winter. Such bacteria tend to increase in numbers in the receiving stream for a short period and then decrease at orderly rates as the time from the point

of maximum density is increased. These rates of decrease were found to be affected by water temperature and apparently by concentration, being most intensive during the warmer months and under conditions where the density of bacteria was greatest.

Having established definite quantitative relationships from these observations, and assuming that they are fairly representative of stream conditions in general, a method is suggested for estimating the maximum concentration of *B. coli* in streams of known volume of flow that may be expected to result from pollution contributed by known sewered populations. Furthermore, the concentration of such organisms remaining at any point downstream may be estimated, providing the velocity of flow is ascertained.

If the observations are representative of general biological laws, they are of practical value for estimating the increasing burden placed on streams receiving the sewage of growing communities and, consequently, the added loads that water-purification plants must be prepared to handle where such polluted watercourses are used as sources of water supply.

#### MEASLES IN THE UNITED STATES, 1923, 1924, AND 1925

The following table gives the numbers of cases of measles reported each quarter during the years 1923, 1924, and 1925 by State health officers of 42 States. The figures are preliminary for most of the States. Final figures will be published later.

The numbers of cases fluctuate widely. This is a characteristic of statistics for measles. In general, the figures for 1925 are low, but the last quarter of that year shows a relative increase in many parts of the country.

*Cases of measles reported during 1925, by State health officers, compared with similar reports for the years 1923 and 1924*

	First quarter	Second quarter	Third quarter	Fourth quarter	Total 12 months
<b>New England:</b>					
Maine—					
1925.....	137	134	59	33	363
1924.....	1,725	1,242	124	53	3,144
1923.....	937	2,359	578	415	4,289
New Hampshire—					
1925.....	269	411	85	18	783
1924.....	1,005	777	43	133	1,958
1923.....	158	860	588	1,384	2,990
Vermont—					
1925.....	88	278	144	69	579
1924.....	2,224	909	143	229	3,505
1923.....	250	2,529	889	1,698	5,375
Massachusetts—					
1925.....	6,272	10,696	1,644	10,204	28,816
1924.....	9,943	9,944	1,235	1,303	22,425
1923.....	11,105	11,208	1,405	3,076	26,894
Connecticut—					
1925.....	1,122	2,813	436	1,173	5,544
1924.....	2,420	1,769	320	117	4,626
1923.....	4,968	2,593	400	1,699	9,660
Total—					
1925.....	7,888	14,332	2,368	11,497	36,085
1924.....	17,817	14,731	1,865	1,835	35,748
1923.....	17,427	19,549	3,920	8,272	49,168
<b>Middle Atlantic:</b>					
New York—					
1925.....	5,240	10,722	2,157	11,482	29,601
1924.....	32,703	32,098	3,428	1,970	70,190
1923.....	14,364	33,742	6,662	9,857	64,625
New Jersey—					
1925.....	2,154	5,003	741	2,708	10,601
1924.....	6,165	8,234	813	675	15,787
1923.....	14,238	10,802	868	1,881	27,789
Pennsylvania—					
1925.....	11,075	21,049	2,497	7,109	41,730
1924.....	9,042	7,792	1,530	3,681	22,045
1923.....	59,230	32,118	2,474	5,469	99,291
Total—					
1925.....	18,469	36,774	5,395	21,294	81,932
1924.....	47,910	48,124	5,771	6,226	108,031
1923.....	87,832	76,662	10,004	17,207	191,705
<b>East North Central:</b>					
Ohio—					
1925.....	1,900	5,369	724	6,031	14,033
1924.....	4,348	8,836	878	488	14,550
1923.....	18,732	26,354	1,350	1,301	47,723
Indiana—					
1925.....	1,750	1,712	209	422	4,093
1924.....	7,730	4,960	274	313	13,277
1923.....	2,448	13,732	739	2,161	19,080
Illinois—					
1925.....	8,854	16,232	1,302	1,823	28,211
1924.....	7,430	10,124	1,251	1,339	20,144
1923.....	12,769	28,716	1,851	3,369	46,705
Michigan—					
1925.....	2,181	5,729	636	1,786	10,332
1924.....	7,867	8,182	635	1,306	18,290
1923.....	2,253	21,238	2,606	3,944	30,041
Wisconsin—					
1925.....	5,643	5,635	1,075	1,374	13,727
1924.....	5,033	4,045	630	1,217	10,925
1923.....	14,830	14,306	1,783	3,112	34,121
Total—					
1925.....	20,337	34,677	3,046	11,436	70,396
1924.....	32,408	30,147	3,968	4,663	77,186
1923.....	51,032	104,416	8,335	13,887	177,670

*Cases of measles reported during 1925, by State health officers, compared with similar reports for the years 1923 and 1924—Continued*

	First quarter	Second quarter	Third quarter	Fourth quarter	Total 12 months
<b>West North Central:</b>					
Minnesota—					
1925.....	385	362	43	68	858
1924.....	3,798	1,740	173	171	5,882
1923.....	4,395	8,422	687	2,255	15,759
Iowa—					
1925.....	38	92	13	94	237
1924.....	3,008	576	66	51	3,701
1923.....	520	1,662	75	430	2,687
Missouri—					
1925.....	152	282	72	91	597
1924.....	7,261	3,194	177	64	10,696
1923.....	5,434	14,061	635	2,587	22,717
North Dakota—					
1925.....	41	32	11	30	114
1924.....	3,354	732	79	223	4,388
1923.....	118	559	298	1,630	2,605
South Dakota—					
1925.....	31	26	18	15	90
1924.....	4,792	1,699	102	11	6,604
1923.....	222	961	275	1,483	2,941
Nebraska—					
1925.....	22	37	14	23	96
1924.....	5,413	1,551	21	13	6,998
1923.....	177	349	84	1,260	1,870
Kansas—					
1925.....	103	155	54	132	444
1924.....	13,692	6,401	125	45	20,263
1923.....	1,398	7,227	669	1,485	10,779
Total—					
1925.....	772	986	225	453	2,436
1924.....	41,318	15,893	743	578	58,532
1923.....	12,264	33,241	2,723	11,130	59,358
<b>South Atlantic</b>					
Delaware—					
1925.....	16	108	38	37	199
1924.....	51	121	16	4	192
1923.....	783	301	20	68	1,172
Maryland—					
1925.....	598	602	270	1,798	3,268
1924.....	2,276	3,112	335	184	5,907
1923.....	3,960	10,068	992	511	15,531
District of Columbia—					
1925.....	209	451	89	48	797
1924.....	134	248	20	23	425
1923.....	1,916	5,437	93	64	7,510
Virginia—					
1925.....	1,610	3,121	534	930	6,195
1924.....	9,717	5,861	414	905	10,897
1923.....	11,678	29,042	3,620	3,503	47,843
West Virginia—					
1925.....	462	1,447	103	359	2,371
1924.....	486	1,238	155	171	2,050
1923.....	2,791	7,273	601	174	10,839
North Carolina—					
1925.....	489	249	47	217	1,002
1924.....	23,632	10,449	488	369	34,938
1923.....	14,513	27,035	2,903	7,555	52,066
South Carolina—					
1925.....	6	76	64	64	210
1924.....	3,741	502	7	6	4,256
1923.....	289	623	135	888	1,935
Georgia—					
1925.....	151	354	19	24	548
1924.....	3,046	439	34	103	3,622
1923.....	2,282	3,002	547	2,005	7,836
Florida—					
1925.....	50	43	9	26	128
1924.....	2,712	491	15	6	3,224
1923.....	228	1,323	246	1,107	2,904
Total—					
1925.....	3,591	6,451	1,173	3,503	14,718
1924.....	45,795	22,461	1,484	1,771	71,511
1923.....	38,440	84,104	9,217	13,875	147,636
<b>East South Central:</b>					
Mississippi—					
1925.....	1,507	1,354	456	1,497	4,814
1924.....	17,697	7,225	409	276	25,697
1923.....	10,810	10,339	1,321	2,806	25,276

*Cases of measles reported during 1925, by State health officers, compared with similar reports for the years 1923 and 1924—Continued*

	First quarter	Second quarter	Third quarter	Fourth quarter	Total 12 months
<b>West South Central:</b>					
Arkansas—					
1925.....	431	292	40	15	778
1924.....	3,707	2,140	310	122	6,279
1923.....	935	2,807	522	649	4,913
Louisiana—					
1925.....	34	25	6	17	82
1924.....	4,731	1,365	61	33	6,190
1923.....	127	1,029	205	1,702	3,063
Oklahoma—					
1925.....	172	54	19	33	278
1924.....	1,932	2,097	16	21	4,066
1923.....	1,821	1,901	102	172	3,996
Texas—					
1925.....	1,172	438	33	9	1,652
1924.....	9,208	2,696	331	426	12,631
1923.....	1,436	1,076	229	1,516	4,257
<b>Total—</b>					
1925.....	1,809	809	98	74	2,790
1924.....	19,578	8,268	718	602	29,166
1923.....	4,319	6,813	1,058	4,039	16,229
<b>Mountain:</b>					
Montana—					
1925.....	277	169	9	31	486
1924.....	5,237	732	20	60	6,049
1923.....	80	296	226	1,933	2,535
Wyoming—					
1925.....	43	76	4	6	129
1924.....	1,522	826	28	78	2,454
1923.....	61	234	159	812	1,266
Colorado—					
1925.....	58	109	58	51	276
1924.....	6,160	3,226	67	29	9,482
1923.....	255	4,677	474	1,454	6,860
New Mexico—					
1925.....	418	169	6	5	598
1924.....	1,853	1,828	102	461	4,244
1923.....	252	453	95	260	1,060
Arizona—					
1925.....	766	613	20	9	1,408
1924.....	1,115	735	36	216	2,102
1923.....	26	376	28	129	559
Nevada—					
1925.....	5	0	1	2	8
1924.....	443	158	3	10	614
1923.....	7	31	15	87	140
<b>Total—</b>					
1925.....	1,567	1,136	98	104	2,905
1924.....	16,330	7,505	256	854	24,945
1923.....	681	6,007	997	4,071	17,756
<b>Pacific:</b>					
Washington—					
1925.....	144	79	22	102	347
1924.....	19,821	1,367	77	107	21,372
1923.....	79	795	290	7,180	8,344
Oregon—					
1925.....	57	46	23	61	187
1924.....	4,470	691	40	41	5,242
1923.....	64	50	84	5,157	5,355
California—					
1925.....	758	1,111	280	242	2,400
1924.....	14,278	12,082	599	414	27,373
1923.....	5,382	14,228	3,370	3,901	26,881
<b>Total—</b>					
1925.....	959	1,236	334	405	2,934
1924.....	38,569	14,140	716	562	53,987
1923.....	5,525	15,073	3,744	16,238	40,580
<b>Grand total—</b>					
1925.....	56,899	97,755	14,093	50,263	219,011
1924.....	276,922	174,494	16,020	17,367	484,803
1923.....	228,350	350,264	41,319	94,125	720,038



## QUALIFICATIONS REQUIRED OF MUNICIPAL BACTERIOLOGIST IN ALEXANDRIA, EGYPT

The president of the municipal commission of Alexandria, Egypt, has recently invited applications for the position of chief bacteriologist in the city of Alexandria. This position is a full-time office and does not permit of private practice. The initial salary is £E 900 (approximately \$4,450), with biennial increases of \$400 to a maximum salary £E 1,140 (\$5,650).<sup>1</sup>

Candidates must not be over 45 years of age, must have proper medical qualifications, and must have had considerable experience in municipal bacteriological work, especially in water examination. Preference will be given to persons having a degree in public health and to those with experience in the bacteriology of tropical diseases.

The following documents must accompany applications:

1. Official certificate of birth (certified copy).
2. Certified copies of diplomas and documents proving candidate's attainments and experience in bacteriology.
3. Certificate of moral character.
4. Certificate of good health signed by two physicians, who must be officials of Federal, State, or local government.
5. A formal agreement to take up the duties of the position, in case of appointment, within one month from date of appointment.

The applicant should note in his application the languages which he understands.

Applications should be addressed to the president of the municipal commission, Alexandria, Egypt, and must be received not later than March 10, 1926.

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## ABSTRACT OF CURRENT PUBLIC HEALTH COURT DECISION

*Sexual sterilization act held valid.*—(Virginia Supreme Court of Appeals; decided November 12, 1925.) The special board of directors of the State colony for epileptics and feeble-minded, acting under authority of chapter 394 of the acts of 1924, entered an order, in compliance with a petition of the superintendent of the colony, that the plaintiff be sexually sterilized. On appeal to the circuit court this order was upheld and a further appeal to the supreme court of appeals was taken. The constitutionality of the act was challenged on the grounds that (1) it did not provide due process of law; (2) it imposed a cruel and unusual punishment; and (3) it denied the plaintiff and other inmates of the colony the equal protection of the law. The supreme court of appeals decided adversely to the plaintiff on all three contentions and held the law to be a valid enactment under the State and Federal Constitutions. (*Buck v. Bell*, Superintendent of State Colony for Epileptics and Feeble-Minded, 130 S. E. 516.)

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<sup>1</sup>The Egyptian pound is worth \$4.913.

## Examination for Entrance Into the Regular Corps of the Public Health Service

Examinations of candidates for entrance into the Regular Corps of the United States Public Health Service will be held at the following-named places on the dates specified:

Washington, D. C., March 15, 1926.

Chicago, Ill., March 15, 1926.

New Orleans, La., March 15, 1926.

San Francisco, Calif., March 15, 1926.

Candidates must be not less than 23 nor more than 32 years of age, and they must have been graduated in medicine at some reputable medical college, and have had one year's hospital experience or two years' professional practice. They must pass satisfactorily, oral, written, and clinical tests before a board of medical officers and undergo a physical examination.

Successful candidates will be recommended for appointment by the President with the advice and consent of the Senate.

Requests for information or permission to take this examination should be addressed to the Surgeon General, United States Public Health Service, Washington, D. C.

## DEATHS DURING WEEK ENDED FEBRUARY 6, 1926

*Summary of information received by telegraph from industrial insurance companies for week ended February 6, 1926, and corresponding week of 1925. (From the Weekly Health Index, February 9, 1926, issued by the Bureau of the Census, Department of Commerce)*

	Week ended Feb. 6, 1926	Corresponding week, 1925
Policies in force.....	63, 335, 002	58, 552, 142
Number of death claims.....	12, 377	11, 254
Death claims per 1,000 policies in force, annual rate.....	10.2	10.0

*Deaths from all causes in certain large cities of the United States during the week ended February 6, 1926, infant mortality, annual death rate, and comparison with corresponding week of 1925. (From the Weekly Health Index, February 9, 1926, issued by the Bureau of the Census, Department of Commerce)*

City	Week ended Feb. 6, 1926		Annual death rate per 1,000 corresponding week 1925	Deaths under 1 year		Infant mortality rate week ended Feb 6, 1926 <sup>2</sup>
	Total deaths	Death rate <sup>1</sup>		Week ended Feb. 6, 1926	Corresponding week, 1925	
Total (67 cities).....	8,172	15.2	14.4	895	969	<sup>3</sup> 73
Akron.....	49			7	9	74
Albany.....	33	14.6	19.5	1	6	21
Atlanta.....	63			8	6	
White.....	27			4		
Colored.....	36	( <sup>b</sup> )		4		
Baltimore.....	339	22.2	16.7	26	34	76
White.....	259			19		68
Colored.....	80	( <sup>b</sup> )		7		114
Birmingham.....	98	24.8	18.0	9	8	
White.....	50			3		
Colored.....	48	( <sup>b</sup> )		6		
Boston.....	228	15.2	19.3	30	35	85
Bridgeport.....	30			2	3	34
Buffalo.....	156	15.0	12.5	19	20	79
Cambridge.....	29	12.6	15.3	1	2	17
Camden.....	42	17.0	14.6	5	4	85
Canton.....	24	11.8	8.8	6	3	133
Chicago.....	753	13.1	13.1	86	121	76
Cincinnati.....	163	20.8	16.8	10	12	62
Cleveland.....	237	13.2	11.6	25	25	65
Columbus.....	84	15.7	14.7	7	9	64
Dallas.....	57	15.4	16.4	7	7	
White.....	44			5		
Colored.....	13	( <sup>b</sup> )		2		
Dayton.....	30	9.0	12.4	2	3	31
Denver.....	92	17.1	14.1	9	7	
Des Moines.....	45	15.7	11.2	4	3	67
Detroit.....	312	13.1	11.4	57	49	92
Duluth.....	24	11.3	14.6	4	2	94
El Paso.....	57	28.3	19.4	11	7	
Erie.....	34			3	5	57
Fall River.....	32	12.9	10.1	7	4	102
Flint.....	27	10.8	9.6	4	6	66
Fort Worth.....	44	15.1	10.3	6	2	
White.....	36			5		
Colored.....	8	( <sup>b</sup> )		1		
Grand Rapids.....	32	10.9	11.2	5	6	72
Houston.....	60	19.0	17.4	6	10	
White.....	42			5		
Colored.....	18	( <sup>b</sup> )		1		
Indianapolis.....	91	13.2	13.1	5	9	37
White.....	77			5		42
Colored.....	14	( <sup>b</sup> )		0		0
Jacksonville, Fla.....	41	20.4	21.9	6	3	131
White.....	24			3		
Colored.....	17	( <sup>b</sup> )		3		
Jersey City.....	94	15.5	13.9	15	12	106
Kansas City, Kans.....	32	14.4	13.5	2	4	35
White.....	28			2		42
Colored.....	4	( <sup>b</sup> )		0		0
Kansas City, Mo.....	123	17.5	13.8	12	11	
Los Angeles.....	285			23	24	64
Louisville.....	88	15.2	13.5	8	12	69
White.....	71			6		60
Colored.....	17	( <sup>b</sup> )		2		126
Lowell.....	42	19.9	18.4	2	11	37
Lynn.....	23	11.6	16.2	1	4	25

<sup>1</sup> Annual rate per 1,000 population.

<sup>2</sup> Deaths under 1 year per 1,000 births—an annual rate based on deaths under 1 year for the week and estimated births for 1924. Cities left blank are not in the registration area for births.

<sup>3</sup> Data for 63 cities.

<sup>4</sup> Deaths for week ended Friday, Feb. 5, 1926.

<sup>5</sup> In the cities for which deaths are shown by color, the colored population in 1920 constituted the following percentages of the total population: Atlanta 31, Baltimore 15, Birmingham 39, Dallas 15, Fort Worth 14, Houston 25, Kansas City, Kans., 14, Louisville 17, Memphis 38, Nashville 30, New Orleans 26, Norfolk 38, Richmond 32, and Washington, D. C., 25.

Deaths from all causes in certain large cities of the United States during the week ended February 6, 1926, infant mortality, annual death rate, and comparison with corresponding week of 1925. (From the Weekly Health Index, February 9, 1926, issued by the Bureau of the Census, Department of Commerce)—Continued

City	Week ended Feb. 6, 1926		Annual death rate per 1,000 corresponding week 1925	Deaths under 1 year		Infant mortality rate week ended Feb. 6, 1926
	Total deaths	Death rate		Week ended Feb. 6, 1926	Corresponding week, 1925	
Memphis.....	75	22.4	20.3	3	12	-----
White.....	34			2		-----
Colored.....	41	( <sup>b</sup> )		1		-----
Milwaukee.....	118	12.3	11.1	15	24	69
Minneapolis.....	99	12.1	11.4	17	9	95
Nashville.....	60	23.0	16.8	10	0	-----
White.....	41			8		-----
Colored.....	19	( <sup>b</sup> )		2		-----
New Bedford.....	23	10.0	12.6	5	5	87
New Haven.....	43	12.5	11.9	3	3	41
New Orleans.....	220	27.7	20.8	21	17	-----
White.....	129			11		-----
Colored.....	91	( <sup>b</sup> )		10		-----
New York.....	1,654	14.7	15.0	183	180	74
Bronx Borough.....	192	11.5	12.2	19	24	63
Brooklyn Borough.....	522	12.4	12.6	74	55	75
Manhattan Borough.....	727	19.5	20.2	75	87	83
Queens Borough.....	162	11.8	10.9	11	10	50
Richmond Borough.....	51	19.2	13.5	4	4	70
Newark, N. J.....	119	13.7	11.2	18	10	86
Norfolk.....	30			2	5	37
White.....	12			1		30
Colored.....	18	( <sup>b</sup> )		1		50
Oakland.....	58	11.9	9.9	3	7	35
Oklahoma City.....	19			2	2	-----
Omaha.....	50	12.3	19.0	8	8	84
Paterson.....	50	18.4	9.9	4	2	70
Philadelphia.....	593	15.6	15.4	62	73	82
Pittsburgh.....	180	14.9	19.3	10	37	63
Portland, Oreg.....	71	13.1	11.3	4	8	41
Providence.....	85	16.5	17.3	11	11	91
Richmond.....	50	14.0	16.8	7	10	88
White.....	28			4		78
Colored.....	22	( <sup>b</sup> )		3		105
Rochester.....	76	12.5	14.0	9	12	72
St. Paul.....	54	11.4	11.7	3	2	37
Salt Lake City.....	49	19.5	10.0	9	4	121
San Antonio.....	79	20.8	16.3	12	9	-----
San Diego.....	48	23.6	21.1	1	3	21
San Francisco.....	197	18.4	13.7	6	12	36
Schenectady.....	32	18.0	9.6	2	2	58
Seattle.....	78			6	6	56
Somerville.....	17	9.0	10.5	2	1	52
Spokane.....	25	12.0	12.9	1	3	23
Springfield, Mass.....	45	16.5	17.6	5	8	72
Syracuse.....	50	14.3	16.0	3	4	38
Tacoma.....	28	14.0	8.5	3	1	70
Toledo.....	63	11.4	13.4	6	5	58
Trenton.....	43	17.0	22.1	5	8	84
Washington, D. C.....	188	19.7	15.0	10	10	108
White.....	119			10		83
Colored.....	69	( <sup>b</sup> )		9		164
Waterbury.....	24			2	4	43
Wilmington, Del.....	36	15.4	15.4	1	7	23
Yonkers.....	31	14.2	10.6	7	4	157
Youngstown.....	32	10.4	12.4	10	7	127

<sup>a</sup> Deaths for week ended Friday, Feb. 5, 1926.

<sup>b</sup> In the cities for which deaths are shown by color, the colored population in 1920 constituted the following percentage of the total population: Atlanta 31, Baltimore 15, Birmingham 39, Dallas 15, Fort Worth 14, Houston 25, Kansas City, Kans., 14, Louisville 17, Memphis 33, Nashville 30, New Orleans 26, Norfolk 38, Richmond 32, and Washington, D. C., 25.

# PREVALENCE OF DISEASE

*No health department, State or local, can effectively prevent or control disease without knowledge of when, where, and under what conditions cases are occurring*

## UNITED STATES

### CURRENT WEEKLY STATE REPORTS

These reports are preliminary and the figures are subject to change when later returns are received by the State health officers

#### Reports for Week Ended February 13, 1926

ALABAMA		CALIFORNIA	
	Cases		Cases
Chicken pox.....	72	Cerebrospinal meningitis:	
Diphtheria.....	18	Fresno County.....	1
Influenza.....	688	Los Angeles.....	4
Malaria.....	2	Los Angeles County.....	1
Measles.....	53	Sacramento.....	2
Mumps.....	9	San Jose.....	1
Ophthalmia neonatorum.....	1	Santa Barbara.....	2
Pellagra.....	6	Siskiyou County.....	1
Pneumonia.....	187	Chicken pox.....	420
Scarlet fever.....	10	Diphtheria.....	91
Smallpox.....	57	Influenza.....	479
Tuberculosis.....	25	Lethargic encephalitis—Los Angeles County.....	1
Typhoid fever.....	3	Measles.....	85
Whooping cough.....	16	Mumps.....	268
		Poliomyelitis:	
ARIZONA		Fresno County.....	1
Chicken pox.....	41	Los Angeles.....	1
Diphtheria.....	5	Oakland.....	1
Influenza.....	6	Sonoma County.....	1
Measles.....	3	Scarlet fever.....	160
Mumps.....	13	Smallpox.....	
Pneumonia.....	2	Los Angeles.....	122
Scarlet fever.....	23	Los Angeles County.....	17
Smallpox.....	3	Oakland.....	21
Trachoma.....	1	Scattering.....	40
Tuberculosis.....	18	Typhoid fever.....	12
Typhoid fever.....	1	Whooping cough.....	57
Whooping cough.....	1		
ARKANSAS		COLORADO	
Chicken pox.....	27	Chicken pox.....	36
Diphtheria.....	8	Diphtheria.....	17
Hookworm disease.....	1	Influenza.....	2
Influenza.....	231	Measles.....	4
Malaria.....	13	Mumps.....	6
Measles.....	7	Paratyphoid fever.....	1
Mumps.....	14	Pneumonia.....	3
Pellagra.....	4	Scarlet fever.....	36
Scarlet fever.....	8	Smallpox.....	3
Smallpox.....	8	Tuberculosis.....	36
Trachoma.....	2	Vincent's angina.....	8
Tuberculosis.....	7	Whooping cough.....	55
Typhoid fever.....	3		
Whooping cough.....	40	CONNECTICUT	
		Chicken pox.....	140
		Conjunctivitis (infectious).....	1

CONNECTICUT—continued		IDAHO	
	Cases		Cases
Diphtheria.....	41	Cerebrospinal meningitis—Coeur d'Alene.....	1
German measles.....	10	Chicken pox.....	24
Influenza.....	9	Diphtheria.....	4
Lethargic encephalitis.....	1	Influenza.....	13
Measles.....	545	Measles.....	5
Mumps.....	17	Mumps.....	18
Pneumonia (broncho).....	24	Pneumonia.....	1
Pneumonia (lobar).....	55	Scarlet fever.....	42
Scarlet fever.....	78	Smallpox.....	26
Septic sore throat.....	1	Whooping cough.....	18
Tuberculosis (all forms).....	18		
Typhoid fever.....	3		
Whooping cough.....	68		
DELAWARE		ILLINOIS	
Chicken pox.....	17	Cerebrospinal meningitis:	
Diphtheria.....	5	Cook County.....	1
Influenza.....	2	Jersey County.....	1
Measles.....	257	Diphtheria.....	107
Pneumonia.....	5	Influenza.....	41
Scarlet fever.....	2	Lethargic encephalitis—Cook County.....	1
Tuberculosis.....	11	Measles.....	691
Typhoid fever.....	1	Pneumonia.....	492
Whooping cough.....	3	Poliomyelitis:	
		Cook County.....	1
		Tazewell County.....	1
		Scarlet fever.....	539
		Smallpox:	
		White County.....	12
		Scattering.....	33
		Tuberculosis.....	235
		Typhoid fever.....	11
		Whooping cough.....	202
DISTRICT OF COLUMBIA		INDIANA	
Chicken pox.....	53	Chicken pox.....	87
Diphtheria.....	32	Diphtheria.....	28
Influenza.....	12	Influenza.....	77
Measles.....	68	Measles.....	532
Pneumonia.....	94	Pneumonia.....	15
Scarlet fever.....	29	Poliomyelitis.....	1
Tuberculosis.....	21	Scarlet fever.....	255
Whooping cough.....	20	Smallpox.....	73
		Tuberculosis.....	39
		Typhoid fever.....	1
		Whooping cough.....	90
FLORIDA		IOWA	
Chicken pox.....	27	Chicken pox.....	37
Diphtheria.....	20	Diphtheria.....	23
German measles.....	1	German measles.....	37
Influenza.....	26	Measles.....	147
Malaria.....	2	Mumps.....	28
Measles.....	2	Pneumonia.....	8
Mumps.....	24	Poliomyelitis.....	1
Paratyphoid fever.....	1	Scarlet fever.....	84
Pneumonia.....	14	Smallpox.....	106
Scarlet fever.....	9	Tuberculosis.....	6
Smallpox.....	121	Whooping cough.....	21
Tetanus.....	1		
Tuberculosis.....	9		
Typhoid fever.....	12		
Whooping cough.....	17		
GEORGIA		KANSAS	
Chicken pox.....	43	Cerebrospinal meningitis.....	1
Diphtheria.....	13	Chicken pox.....	102
Dysentery.....	2	Diphtheria.....	27
Influenza.....	1,045	German measles.....	4
Leprosy.....	1	Influenza.....	53
Malaria.....	12	Measles.....	127
Measles.....	88	Mumps.....	12
Mumps.....	42	Pneumonia.....	106
Pellagra.....	4	Scarlet fever.....	89
Pneumonia.....	132		
Scarlet fever.....	10		
Septic sore throat.....	11		
Smallpox.....	33		
Tuberculosis.....	44		
Typhoid fever.....	7		
Whooping cough.....	19		

## KANSAS—continued

	Cases
Smallpox.....	7
Tetanus.....	2
Tuberculosis.....	30
Typhoid fever.....	2
Whooping cough.....	98

## LOUISIANA

Diphtheria.....	17
Influenza.....	357
Pneumonia.....	64
Scarlet fever.....	15
Smallpox.....	51
Tuberculosis.....	57
Typhoid fever.....	17
Whooping cough.....	4

## MAINE

Chicken pox.....	26
Diphtheria.....	1
Influenza.....	33
Measles.....	20
Mumps.....	10
Pneumonia.....	29
Polomyelitis.....	1
Scarlet fever.....	26
Septic sore throat.....	3
Tuberculosis.....	1
Tuberculous meningitis.....	1
Typhoid fever.....	1
Vincent's angina.....	3
Whooping cough.....	16

MARYLAND <sup>1</sup>

Cerebrospinal meningitis.....	1
Chicken pox.....	112
Diphtheria.....	39
Dysentery.....	3
German measles.....	5
Influenza.....	776
Measles.....	1,416
Mumps.....	153
Paratyphoid fever.....	1
Pneumonia (broncho).....	140
Pneumonia (lobar).....	140
Scarlet fever.....	51
Septic sore throat.....	3
Tetanus.....	2
Tuberculosis.....	43
Typhoid fever.....	4
Whooping cough.....	63

## MASSACHUSETTS

Cerebrospinal meningitis.....	1
Chicken pox.....	254
Conjunctivitis (suppurative).....	2
Diphtheria.....	85
German measles.....	87
Influenza.....	12
Lethargic encephalitis.....	3
Measles.....	1,564
Mumps.....	63
Ophthalmia neonatorum.....	32
Pneumonia (lobar).....	115
Polomyelitis.....	1
Scarlet fever.....	278

## MASSACHUSETTS—continued

	Cases
Septic sore throat.....	3
Trachoma.....	1
Trichinosis.....	1
Tuberculosis (pulmonary).....	112
Tuberculosis (other forms).....	16
Typhoid fever.....	4
Whooping cough.....	346

## MICHIGAN

Diphtheria.....	163
Measles.....	1,734
Pneumonia.....	201
Scarlet fever.....	385
Smallpox.....	9
Tuberculosis.....	61
Typhoid fever.....	5
Whooping cough.....	269

## MINNESOTA

Chicken pox.....	164
Diphtheria.....	40
Influenza.....	3
Measles.....	76
Pneumonia.....	3
Scarlet fever.....	387
Smallpox.....	14
Tuberculosis.....	49
Typhoid fever.....	3
Whooping cough.....	47

## MISSISSIPPI

Diphtheria.....	19
Influenza.....	651
Scarlet fever.....	12
Smallpox.....	11
Typhoid fever.....	3

## MISSOURI

(Exclusive of Kansas City)

Cerebrospinal meningitis.....	1
Chicken pox.....	79
Diphtheria.....	70
Epidemic sore throat.....	4
Influenza.....	9
Measles.....	71
Mumps.....	74
Pneumonia.....	13
Scarlet fever.....	218
Smallpox.....	2
Tuberculosis.....	52
Typhoid fever.....	3
Whooping cough.....	20

## MONTANA

Chicken pox.....	18
German measles.....	7
Influenza.....	2
Measles.....	6
Mumps.....	14
Scarlet fever.....	15
Septic sore throat.....	1
Smallpox.....	14
Tuberculosis.....	7
Whooping cough.....	16

<sup>1</sup> Week ended Friday.

## NEBRASKA

	Cases
Chicken pox.....	23
Diphtheria.....	21
Influenza.....	14
Measles.....	9
Mumps.....	14
Pneumonia.....	1
Scarlet fever.....	41
Smallpox.....	17
Tuberculosis.....	1
Typhoid fever.....	1
Whooping cough.....	22

## NEW JERSEY

Cerebrospinal meningitis.....	2
Chicken pox.....	311
Diphtheria.....	83
Influenza.....	41
Malaria.....	1
Measles.....	2,027
Pneumonia.....	180
Scarlet fever.....	197
Typhoid fever.....	5
Whooping cough.....	47

## NEW MEXICO

Chicken pox.....	36
Conjunctivitis.....	1
Diphtheria.....	7
Influenza.....	368
Measles.....	1
Mumps.....	17
Pneumonia.....	29
Rabies (in animals).....	3
Scarlet fever.....	10
Septic sore throat.....	1
Smallpox.....	11
Tuberculosis.....	22
Typhoid fever.....	2
Whooping cough.....	15

## NEW YORK

(Exclusive of New York City)

Chicken pox.....	413
Diphtheria.....	74
German measles.....	267
Influenza.....	93
Measles.....	1,207
Mumps.....	157
Ophthalmia neonatorum.....	1
Pneumonia.....	319
Poliomyelitis.....	2
Scarlet fever.....	296
Septic sore throat.....	3
Smallpox.....	2
Trachoma.....	2
Typhoid fever.....	17
Vincent's angina.....	7
Whooping cough.....	452

## NORTH CAROLINA

Chicken pox.....	218
Diphtheria.....	27
German measles.....	63
Measles.....	290
Poliomyelitis.....	1
Scarlet fever.....	26
Smallpox.....	28
Typhoid fever.....	3
Whooping cough.....	224

2 Deaths.

## OKLAHOMA

(Exclusive of Tulsa and Oklahoma City)

	Cases
Cerebrospinal meningitis—Muskogee.....	1
Chicken pox.....	34
Diphtheria.....	24
Influenza.....	601
Malaria.....	11
Measles.....	11
Mumps.....	12
Pellagra.....	11
Pneumonia.....	211
Scarlet fever.....	31
Smallpox.....	
Carter.....	12
Scattering.....	6
Typhoid fever.....	3
Whooping cough.....	46

## OREGON

Cerebrospinal meningitis.....	3
Chicken pox.....	24
Diphtheria.....	37
Influenza.....	191
Measles.....	20
Mumps.....	39
Pneumonia <sup>2</sup> .....	14
Scarlet fever.....	44
Smallpox.....	
Linn County.....	11
Scattering.....	31
Tuberculosis.....	17
Typhoid fever.....	1
Whooping cough.....	20

## PENNSYLVANIA

Anthrax—Philadelphia.....	1
Cerebrospinal meningitis:	
Clay Township <sup>3</sup> .....	1
East Pittsburgh.....	1
Philadelphia.....	1
Chicken pox.....	1,006
Diphtheria.....	264
German measles.....	40
Impetigo contagiosa.....	11
Malaria.....	1
Measles.....	3,238
Mumps.....	206
Ophthalmia neonatorum:	
Oxford.....	1
Philadelphia.....	6
Pneumonia.....	96
Poliomyelitis.....	1
Scabies.....	18
Scarlet fever.....	688
Smallpox.....	1
Tetanus:	
Ambridge.....	1
Philadelphia.....	2
Trachoma—Philadelphia.....	1
Tuberculosis.....	106
Typhoid fever.....	22
Whooping cough.....	441

## RHODE ISLAND

Chicken pox.....	4
Diphtheria.....	4
German measles.....	5

<sup>2</sup> County not specified.



## RHODE ISLAND—continued

	Cases
Influenza.....	3
Measles.....	416
Mumps.....	1
Pneumonia.....	4
Scarlet fever.....	0
Tuberculosis.....	7
Whooping cough.....	15

## SOUTH DAKOTA

Cerebrospinal meningitis.....	1
Chicken pox.....	5
Diphtheria.....	3
Measles.....	4
Pneumonia.....	1
Scarlet fever.....	51
Smallpox.....	7
Typhoid fever.....	1
Whooping cough.....	3

## TENNESSEE

Chicken pox.....	71
Diphtheria.....	19
Influenza.....	185
Malaria.....	6
Measles.....	361
Mumps.....	50
Ophthalmia neonatorum.....	4
Pellagra.....	3
Pneumonia.....	147
Scarlet fever.....	30
Smallpox.....	11
Tuberculosis.....	43
Typhoid fever.....	9
Whooping cough.....	17

## TEXAS

Chicken pox.....	67
Diphtheria.....	41
Influenza.....	634
Measles.....	10
Mumps.....	21
Pellagra.....	2
Pneumonia.....	79
Polioomyelitis.....	2
Scarlet fever.....	33
Septic sore throat.....	7
Smallpox.....	67
Trachoma.....	1
Tuberculosis.....	32
Typhoid fever.....	2
Whooping cough.....	34

## UTAH

Chicken pox.....	70
Diphtheria.....	17
Influenza.....	79
Measles.....	4
Mumps.....	32
Pneumonia.....	10
Scarlet fever.....	10
Smallpox.....	4
Whooping cough.....	33

## VERMONT

Chicken pox.....	48
Diphtheria.....	2
Measles.....	5

## VERMONT—continued

	Cases
Mumps.....	5
Scarlet fever.....	24
Whooping cough.....	44

## VIRGINIA

Smallpox.....	2
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## WASHINGTON

Cerebrospinal meningitis—Spokane.....	5
Chicken pox.....	120
Diphtheria.....	13
German measles.....	31
Influenza.....	3
Measles.....	23
Mumps.....	143
Pneumonia.....	2
Scarlet fever.....	95
Smallpox.....	

Pierce County.....	26
Seattle.....	15
Tacoma.....	18
Scatterling.....	68
Tuberculosis.....	42
Typhoid fever.....	5
Whooping cough.....	56

## WEST VIRGINIA

Diphtheria.....	7
Scarlet fever.....	21
Typhoid fever—Hinton.....	4

## WISCONSIN

Milwaukee.....	
Chicken pox.....	107
Diphtheria.....	22
German measles.....	2
Influenza.....	2
Measles.....	14
Mumps.....	15
Pneumonia.....	17
Scarlet fever.....	36
Tuberculosis.....	25
Whooping cough.....	68

Scatterling:	
Cerebrospinal meningitis.....	1
Chicken pox.....	199
Diphtheria.....	46
German measles.....	15
Influenza.....	45
Measles.....	239
Mumps.....	126
Pneumonia.....	32
Polioomyelitis.....	1
Scarlet fever.....	163
Smallpox.....	13
Tuberculosis.....	11
Typhoid fever.....	2
Whooping cough.....	143

## WYOMING

Chicken pox.....	6
German measles.....	2
Measles.....	2
Mumps.....	3
Pneumonia.....	6
Scarlet fever.....	13
Tuberculosis.....	1
Typhoid fever.....	1
Whooping cough.....	8

\* Incomplete report.

## Report for Week Ended February 6, 1926

NORTH DAKOTA		NORTH DAKOTA—continued	
	Cases		Cases
Chicken pox.....	2	Poliomyelitis.....	2
Diphtheria.....	1	Scarlet fever.....	83
German measles.....	60	Smallpox.....	9
Measles.....	11	Tuberculosis.....	4
Mumps.....	53	Typhoid fever.....	1
Pneumonia.....	22	Whooping cough.....	19

## SUMMARY OF MONTHLY REPORTS FROM STATES

The following summary of monthly State reports is published weekly and covers only those States from which reports are received during the current week:

State	Cerebro-spinal meningitis	Diphtheria	Influenza	Malaria	Measles	Pellagra	Poliomyelitis	Scarlet fever	Smallpox	Typhoid fever
<i>December, 1925</i>										
Alabama.....	1	117	324	52	14	17	2	74	64	70
Hawaii Territory.....	1	35	0	—	35	—	—	4	1	5
Illinois.....	26	540	959	33	868	—	11	1,755	137	297
Iowa.....	1	133	—	—	77	—	5	216	90	23
Oklahoma <sup>1</sup> .....	3	157	497	62	16	9	1	166	30	119
<i>January, 1926</i>										
Arizona.....	1	29	—	—	4	1	1	64	1	5
Connecticut.....	—	186	38	—	2,600	—	—	338	0	13
Massachusetts.....	17	391	57	1	6,573	1	6	1,289	0	27
North Carolina.....	2	206	—	—	383	—	1	249	156	22

<sup>1</sup> Exclusive of Tulsa and Oklahoma City.

## PLAGUE-ERADICATIVE MEASURES IN THE UNITED STATES

The following items were taken from the reports of plague-eradication measures from the cities named:

*Los Angeles, Calif.*

Week ended Jan. 30, 1926:

Number of rats trapped.....	2,631
Number of rats found to be plague infected.....	0
Number of squirrels examined.....	832
Number of squirrels found to be plague infected.....	0
Number of mice trapped.....	2,897
Number of mice found to be plague infected.....	0

Date of discovery of last plague-infected rodent, Nov. 6, 1925.

Date of last human case, Jan. 15, 1925.

*Oakland, Calif.*

(Including other East Bay communities)

Week ended Jan. 30, 1926:

Number of rats trapped.....	414
Number of rats found to be plague infected.....	0

**Totals:**

Number of rats trapped Jan. 1, 1925, to Jan. 30, 1926 .....	81, 127
Number of rats found to be plague infected.....	21
Number of squirrels examined May 1 to Aug. 1, 1925.....	7, 277
Number of squirrels found to be plague infected.....	0
Number of mice trapped Jan. 1, 1925, to Jan. 30, 1926.....	31, 837
Date of discovery of last plague-infected rat, Mar. 4, 1925.	
Date of last human case, Sept. 10, 1919.	

**GENERAL CURRENT SUMMARY AND WEEKLY REPORTS FROM CITIES**

*Diphtheria*.—For the week ended January 30, 1926, 37 States reported 1,348 cases of diphtheria. For the week ended January 31, 1925, the same States reported 1,625 cases of this disease. One hundred cities, situated in all parts of the country and having an aggregate population of about 29,900,000, reported 813 cases of diphtheria for the week ended January 30, 1926. Last year for the corresponding week they reported 890 cases. The estimated expectancy for these cities was 1,137 cases. The estimated expectancy is based on the experience of the last nine years, excluding epidemics.

*Measles*.—Thirty-four States reported 10,827 cases of measles for the week ended January 30, 1926, and 2,233 cases of this disease for the week ended January 31, 1925. One hundred cities reported 7,944 cases of measles for the week this year, and 1,163 cases last year.

*Poliomyelitis*.—The health officers of 38 States reported 24 cases of poliomyelitis for the week ended January 30, 1926. The same States reported 16 cases for the week ended January 31, 1925.

*Scarlet fever*.—Scarlet fever was reported for the week as follows: Thirty-seven States—this year, 3,972 cases; last year, 3,990 cases; 100 cities—this year, 1,649 cases; last year, 1,844 cases; estimated expectancy, 1,243 cases.

*Smallpox*.—For the week ended January 30, 1926, 37 States reported 916 cases of smallpox. Last year for the corresponding week they reported 1,223 cases. One hundred cities reported smallpox for the week as follows: 1926, 234 cases; 1925, 370 cases; estimated expectancy, 120 cases. Ten deaths from smallpox were reported by these cities for the week this year—at Los Angeles, Calif.

*Typhoid fever*.—Two hundred and eight cases of typhoid fever were reported for the week ended January 30, 1926, by 36 States. For the corresponding week of 1925, the same States reported 267 cases of this disease. One hundred cities reported 45 cases of typhoid fever for the week this year and 98 cases for the corresponding week last year. The estimated expectancy for these cities was 57 cases.

*Influenza and pneumonia*.—Deaths from influenza and pneumonia were reported for the week by 93 cities, with a population of about 29,200,000, as follows: 1926, 1,245 deaths; 1925, 1,204.

## City reports for week ended January 30, 1926

The "estimated expectancy" given for diphtheria, poliomyelitis, scarlet fever, smallpox, and typhoid fever is the result of an attempt to ascertain from previous occurrence how many cases of the disease under consideration may be expected to occur during a certain week in the absence of epidemics. It is based on reports to the Public Health Service during the past nine years. It is in most instances the median number of cases reported in the corresponding week of the preceding years. When the reports include several epidemics or when for other reasons the median is unsatisfactory, the epidemic periods are excluded and the estimated expectancy is the mean number of cases reported for the week during nonepidemic years.

If reports have not been received for the full nine years, data are used for as many years as possible, but no year earlier than 1917 is included. In obtaining the estimated expectancy, the figures are smoothed when necessary to avoid abrupt deviations from the usual trend. For some of the diseases given in the table the available data were not sufficient to make it practicable to compute the estimated expectancy.

Division, State, and city	Population July 1, 1925, estimated	Chick- en pox, cases re- ported	Diphtheria		Influenza		Meas- les, cases re- ported	Mumps, cases re- ported	Pneu- monia, deaths re- ported
			Cases, esti- mated expect- ancy	Cases re- ported	Cases re- ported	Deaths re- ported			
NEW ENGLAND									
Maine:									
Portland.....	75,333	3	2	0	0	0	8	3	3
New Hampshire:									
Concord.....	22,546	0	0	1	0	0	4	0	0
Manchester.....	83,097	0	2	0	0	0	0	0	1
Vermont:									
Barrington.....	10,008	0	0	0	0	1	0	0	1
Burlington.....	24,039	2	1	1	0	0	0	0	1
Massachusetts:									
Boston.....	779,620	115	67	19	4	1	158	18	29
Fall River.....	128,993	4	6	5	1	2	65	1	2
Springfield.....	142,065	8	5	0	0	0	76	0	1
Worcester.....	190,757	0	6	8	0	0	96	2	6
Rhode Island:									
Pawtucket.....	60,760	2	1	2	0	0	57	0	0
Providence.....	267,918	0	12	5	0	2	491	0	7
Connecticut:									
Bridgeport.....	(1)	5	9	3	0	0	83	0	1
Hartford.....	160,197	11	8	7	1	1	50	0	5
New Haven.....	178,927	60	5	0	4	0	76	1	6
MIDDLE ATLANTIC									
New York:									
Buffalo.....	538,016	20	10	10	0	0	9	3	15
New York.....	5,873,356	328	228	143	38	18	1,694	41	231
Rochester.....	316,789	16	9	22	0	0	65	1	6
Syracuse.....	182,003	26	9	3	0	0	24	27	5
New Jersey:									
Camden.....	128,642	28	5	0	2	2	49	0	11
Newark.....	452,513	88	22	6	6	0	186	2	19
Trenton.....	132,020	4	7	1	3	3	6	0	5
Pennsylvania:									
Philadelphia.....	1,979,364	198	79	57	-----	10	317	11	108
Pittsburgh.....	631,763	51	22	19	-----	4	25	5	34
Reading.....	112,707	8	5	0	0	0	6	3	3
EAST NORTH CENTRAL									
Ohio:									
Cincinnati.....	409,333	12	11	10	0	6	3	0	10
Cleveland.....	936,485	73	35	46	0	1	1,563	3	20
Columbus.....	279,836	15	4	7	0	4	52	0	9
Toledo.....	287,380	23	8	3	0	3	50	0	6
Indiana:									
Fort Wayne.....	97,846	1	4	1	0	1	1	0	2
Indianapolis.....	358,819	6	13	7	0	2	331	0	13
South Bend.....	80,091	5	1	0	0	0	1	0	0
Terre Haute.....	71,071	3	1	1	0	0	2	0	2
Illinois:									
Chicago.....	2,995,239	160	117	54	7	1	61	24	62
Peoria.....	81,564	1	0	0	0	1	0	19	2
Springfield.....	63,923	6	2	0	2	1	1	5	3

\* No estimate made.

## City reports for week ended January 30, 1926—Continued

Division, State, and city	Population July 1, 1925, estimated	Chick- en pox, cases re- ported	Diphtheria		Influenza		Meas- les, cases re- ported	Mumps, cases re- ported	Pneu- monia, deaths re- ported
			Cases, estimated expectancy	Cases re- ported	Cases re- ported	Deaths re- ported			
EAST NORTH CENTRAL— continued									
Michigan:									
Detroit.....	1,245,824	97	67	46	6	0	1,017	7	94
Flint.....	130,316	10	8	1	0	0	11	11	2
Grand Rapids.....	153,698	9	4	0	1	2	9	0	2
Wisconsin:									
Madison.....	46,385	11	1	0	0	0	14	2	1
Milwaukee.....	509,192	110	20	28	0	0	10	33	21
Racine.....	67,707	7	1	0	0	0	0	2	1
Superior.....	39,671	0	1	1	0	0	0	0	2
WEST NORTH CENTRAL									
Minnesota:									
Duluth.....	110,502	10	2	1	0	0	6	6	0
Minneapolis.....	425,435	62	21	27	0	1	10	1	7
St. Paul.....	246,001	32	14	12	0	2	9	2	14
Iowa:									
Davenport.....	(1)	1	1	1	0	—	0	0	—
Des Moines.....	(1)	1	3	2	0	—	5	0	—
Sioux City.....	(1)	3	1	1	0	—	1	1	—
Waterloo.....	36,771	8	1	2	0	—	1	0	—
Missouri:									
Kansas City.....	367,481	72	10	11	3	3	91	3	9
St. Joseph.....	78,342	2	3	0	0	0	0	0	8
St. Louis.....	821,543	30	50	63	0	—	10	7	—
North Dakota:									
Fargo.....	26,403	6	0	0	0	0	9	31	1
Grand Forks.....	14,811	2	0	0	0	—	1	0	—
South Dakota:									
Aberdeen.....	15,036	0	0	0	0	—	7	55	—
Sioux Falls.....	30,127	1	0	0	0	—	0	0	—
Nebraska:									
Lincoln.....	60,941	11	3	1	0	0	0	0	0
Omaha.....	211,768	9	5	2	0	0	1	0	7
Kansas:									
Topeka.....	55,411	4	2	1	0	0	1	1	2
Wichita.....	88,367	10	4	4	0	0	0	1	4
SOUTH ATLANTIC									
Delaware:									
Wilmington.....	122,040	14	2	3	0	0	79	0	6
Maryland:									
Baltimore.....	796,296	114	30	16	940	8	961	111	69
Cumberland.....	33,741	0	0	0	1	0	5	0	2
Frederick.....	12,035	0	0	0	0	0	5	0	0
District of Columbia:									
Washington.....	497,906	41	18	20	6	2	32	2	20
Virginia:									
Lynchburg.....	30,395	22	1	2	0	0	4	1	1
Norfolk.....	(1)	8	2	1	0	0	3	1	7
Richmond.....	186,403	9	5	4	0	2	7	9	8
Roanoke.....	58,208	3	2	5	0	0	12	1	0
West Virginia:									
Charleston.....	49,019	1	1	1	0	1	0	1	2
Huntington.....	63,485	1	1	3	0	0	2	0	0
Wheeling.....	56,208	3	1	0	0	0	2	0	5
North Carolina:									
Raleigh.....	30,371	5	1	0	0	2	3	0	3
Wilmington.....	37,061	4	0	0	0	0	0	0	1
Winston-Salem.....	69,031	7	1	0	0	0	87	3	3
South Carolina:									
Charleston.....	73,125	0	1	0	0	1	0	0	3
Columbia.....	41,225	2	1	0	0	0	0	0	0
Greenville.....	27,311	2	0	1	0	0	0	1	0
Georgia:									
Atlanta.....	(1)	3	3	5	75	1	9	0	12
Brunswick.....	16,809	1	0	0	0	0	0	0	0
Savannah.....	93,134	1	1	2	72	2	2	0	6
Florida:									
St. Petersburg.....	26,847	0	0	0	0	0	0	0	2
Tampa.....	94,743	8	1	2	0	0	3	0	3

1 No estimate made.

## City reports for week ended January 30, 1926—Continued

Division, State, and city	Population July 1, 1925, estimated	Chick- en pov, cases 14- reported	Diphtheria		Influenza		Meas- les, cases re- ported	Mumps, cases re- ported	Pneu- monia, deaths re- ported
			Cases, esti- mated expectancy	Cases re- ported	Cases re- ported	Deaths re- ported			
EAST SOUTH CENTRAL									
Kentucky:									
Covington.....	58,309	0	1	0	0	0	0	0	3
Louisville.....	305,935	6	8	1	5	1	4	0	6
Tennessee:									
Memphis.....	174,533	12	5	4	0	3	3	1	5
Nashville.....	136,220	5	1	3	0	3	66	0	11
Alabama:									
Birmingham.....	205,670	24	3	0	22	6	3	4	13
Mobile.....	65,955	1	0	0	0	1	0	0	2
Montgomery.....	46,481	0	1	0	0	0	0	16	0
WEST SOUTH CENTRAL									
Arkansas:									
Fort Smith.....	31,643	4	1	1	0	-----	0	0	-----
Little Rock.....	74,216	1	1	1	2	-----	0	0	3
Louisiana:									
New Orleans.....	414,493	5	14	8	90	26	2	0	26
Shreveport.....	57,857	2	1	0	0	2	1	1	7
Oklahoma:									
Oklahoma City.....	(1)	1	1	0	6	0	0	0	4
Texas:									
Dallas.....	194,450	36	6	7	15	1	3	0	15
Galveston.....	48,375	0	1	2	0	0	0	0	7
Houston.....	164,954	4	4	11	0	1	0	0	16
San Antonio.....	198,069	1	2	3	0	2	0	0	20
MOUNTAIN									
Montana:									
Billings.....	17,971	3	1	0	0	0	0	6	1
Great Falls.....	29,883	4	1	0	0	0	0	35	1
Helena.....	12,037	0	0	0	0	0	0	0	0
Missoula.....	12,608	2	0	2	0	0	0	0	1
Idaho:									
Boise.....	23,042	2	0	0	0	0	0	0	0
Colorado:									
Denver.....	280,911	32	11	18	0	1	10	5	6
Pueblo.....	43,787	5	3	4	0	0	0	0	4
New Mexico:									
Albuquerque.....	21,000	3	0	1	0	0	0	3	1
Arizona:									
Phoenix.....	38,669	2	1	1	0	0	0	0	3
Utah:									
Salt Lake City.....	130,948	39	3	4	0	7	1	18	5
Nevada:									
Reno.....	12,665	0	0	1	0	0	0	0	0
PACIFIC									
Washington:									
Seattle.....	(1)	60	7	2	0	-----	8	143	-----
Spokane.....	108,897	15	5	0	0	-----	0	0	-----
Tacoma.....	104,455	2	2	4	0	0	0	0	4
Oregon:									
Portland.....	282,383	6	8	7	3	0	0	7	15
California:									
Los Angeles.....	(1)	59	46	39	89	3	9	12	29
Sacramento.....	73,260	3	3	-2	1	6	0	0	4
San Francisco.....	557,530	32	25	15	16	13	10	5	12

<sup>1</sup> No estimate made.

## City reports for week ended January 30, 1926—Continued

Division, State, and city	Scarlet fever		Smallpox			Tuber- culo- sis, deaths re- ported	Typhoid fever			Whoop- ing cough, cases re- ported	Deaths, all causes
	Cases, esti- mated expect- ancy	Cases re- ported	Cases, esti- mated expect- ancy	Cases re- ported	Deaths re- ported		Cases, esti- mated expect- ancy	Cases re- ported	Deaths re- ported		
NEW ENGLAND											
Maine:											
Portland.....	2	8	0	0	0	0	0	1	0	4	17
New Hampshire:											
Concord.....	0	0	0	0	0	0	0	0	0	0	12
Manchester.....	3	16	0	0	0	0	0	0	0	0	21
Vermont:											
Barre.....	1	0	0	0	0	1	0	0	0	0	8
Burlington.....	1	6	0	0	0	0	0	0	0	0	8
Massachusetts:											
Boston.....	54	97	0	0	0	16	1	1	0	175	235
Fall River.....	3	1	0	0	0	4	1	0	0	7	44
Springfield.....	11	1	0	0	0	1	0	0	0	1	41
Worcester.....	10	9	0	0	0	1	0	0	0	16	56
Rhode Island:											
Pawtucket.....	1	0	0	0	0	1	0	0	0	5	19
Providence.....	9	10	0	0	0	2	0	0	0	4	76
Connecticut:											
Bridgeport.....	8	17	0	0	0	0	0	0	0	6	33
Hartford.....	7	0	0	0	0	3	0	2	0	3	40
New Haven.....	10	17	0	0	0	0	0	0	0	19	46
MIDDLE ATLANTIC											
New York:											
Buffalo.....	22	27	1	0	0	10	2	5	1	24	126
New York.....	234	195	1	0	0	104	10	11	0	54	1,524
Rochester.....	13	28	0	0	0	3	1	0	0	9	73
Syracuse.....	16	0	0	0	0	2	1	1	0	69	38
New Jersey:											
Camden.....	4	16	0	0	0	0	0	1	1	4	46
Newark.....	24	25	0	0	0	8	0	0	0	23	120
Trenton.....	5	6	0	2	0	2	0	0	0	0	45
Pennsylvania:											
Philadelphia.....	70	96	1	0	0	53	3	1	2	49	636
Pittsburgh.....	33	70	0	0	0	12	1	0	0	33	183
Reading.....	1	9	0	0	0	0	1	0	0	10	27
EAST NORTH CENTRAL											
Ohio:											
Cincinnati.....	11	24	1	1	0	2	0	2	0	32	121
Cleveland.....	32	40	2	4	0	16	1	1	0	89	189
Columbus.....	11	11	1	1	0	1	1	0	0	5	81
Toledo.....	19	14	3	0	0	4	0	0	0	12	76
Indiana:											
Fort Wayne.....	4	7	1	0	0	2	0	0	0	0	28
Indianapolis.....	10	17	6	45	0	2	0	0	0	25	110
South Bend.....	3	4	1	12	0	0	0	0	0	0	10
Terre Haute.....	3	5	1	0	0	1	0	0	0	1	21
Illinois:											
Chicago.....	153	133	3	0	0	42	4	0	0	51	741
Peoria.....	6	3	0	1	0	1	0	0	0	1	21
Springfield.....	2	2	0	0	0	0	1	1	1	3	21
Michigan:											
Detroit.....	97	123	4	0	0	22	1	1	0	60	284
Flint.....	9	6	2	0	0	0	0	0	0	26	18
Grand Rapids.....	11	29	0	0	0	2	1	0	0	44	41
Wisconsin:											
Madison.....	3	8	0	0	0	0	0	0	0	8	7
Milwaukee.....	39	27	2	0	0	6	1	1	0	63	103
Racine.....	7	1	1	0	0	0	0	0	0	23	11
Superior.....	2	3	4	0	0	1	0	0	0	0	14

1 Pulmonary tuberculosis only.

## City reports for week ended January 30, 1926—Continued

Division, State, and city	Scarlet fever		Smallpox			Tuber- cul- osis, deaths re- ported	Typhoid fever			Whoop- ing cough, cases re- ported	Deaths, all causes
	Cases, es- timated expect- ancy	Cases re- ported	Cases, esti- mated expect- ancy	Cases re- ported	Deaths re- ported		Cases, esti- mated expect- ancy	Cases re- ported	Deaths re- ported		
WEST NORTH CENTRAL											
Minnesota:											
Duluth.....	5	29	1	0	0	0	1	0	0	11	23
Minneapolis.....	44	74	16	0	0	4	1	0	0	5	92
St. Paul.....	27	54	9	0	0	2	1	1	0	19	71
Iowa:											
Davenport.....	2	1	2	0	-----	-----	0	0	-----	0	-----
Des Moines.....	7	4	3	1	-----	-----	0	0	-----	0	-----
Sioux City.....	2	3	1	11	-----	-----	0	0	-----	0	-----
Waterloo.....	2	4	0	0	-----	-----	0	0	-----	0	-----
Missouri:											
Kansas City.....	14	27	2	0	0	5	0	0	0	25	91
St. Joseph.....	3	1	0	1	0	0	0	0	0	2	30
St. Louis.....	38	111	4	4	0	8	1	0	0	5	226
North Dakota:											
Fargo.....	1	3	0	0	0	0	0	0	0	0	2
Grand Forks.....	1	0	1	0	-----	-----	0	0	-----	0	-----
South Dakota:											
Aberdeen.....	1	1	0	0	-----	-----	0	0	-----	0	-----
Sioux Falls.....	2	4	0	0	-----	-----	0	0	-----	0	-----
Nebraska:											
Lincoln.....	2	0	0	0	0	0	0	0	0	4	15
Omaha.....	5	14	6	11	0	1	0	0	0	1	59
Kansas:											
Topeka.....	1	4	0	0	0	0	0	0	0	2	18
Wichita.....	4	6	0	0	0	2	0	0	0	0	34
SOUTH ATLANTIC											
Delaware:											
Wilmington.....	3	5	0	0	0	2	0	0	0	6	35
Maryland:											
Baltimore.....	40	24	0	0	0	18	2	2	0	41	331
Cumberland.....	1	0	0	0	0	1	0	0	0	0	14
Frederick.....	1	1	0	0	0	0	0	0	0	0	5
District of Col.:											
Washington.....	23	27	1	0	0	9	1	0	0	7	145
Virginia:											
Lynchburg.....	0	0	0	0	0	2	0	0	0	7	8
Norfolk.....	1	3	0	0	0	1	0	0	0	11	-----
Richmond.....	5	9	0	0	0	2	0	0	0	2	61
Roanoke.....	1	1	0	1	0	1	0	0	0	0	9
West Virginia:											
Charleston.....	1	0	0	0	0	0	1	0	0	4	17
Huntington.....	1	0	0	0	0	4	0	0	0	0	17
Wheeling.....	1	0	0	0	0	0	1	0	0	0	10
North Carolina:											
Raleigh.....	0	0	0	0	0	0	0	0	0	0	11
Wilmington.....	1	2	0	0	0	0	0	0	0	4	14
Winston-Salem.....	1	2	2	5	0	4	0	0	0	5	26
South Carolina:											
Charleston.....	1	1	1	0	0	2	0	0	0	5	29
Columbia.....	0	1	1	0	0	0	0	0	0	0	-----
Greenville.....	1	0	0	1	0	0	0	0	0	2	3
Georgia:											
Atlanta.....	3	5	2	0	0	3	1	0	0	2	71
Brunswick.....	0	0	0	0	0	0	0	0	0	4	4
Savannah.....	1	0	0	0	0	3	1	0	0	0	34
Florida:											
St. Petersburg.....	0	0	0	0	0	0	0	0	0	0	10
Tampa.....	0	1	0	24	0	2	1	3	0	0	32
EAST SOUTH CENTRAL											
Kentucky:											
Covington.....	1	0	0	0	0	4	1	0	0	0	25
Louisville.....	5	5	1	0	0	4	1	2	1	4	72
Tennessee:											
Memphis.....	4	9	3	2	0	5	0	0	1	0	73
Nashville.....	3	3	0	0	0	4	0	0	0	1	67
Alabama:											
Birmingham.....	3	3	3	2	0	6	1	0	0	11	67
Mobile.....	0	0	1	0	0	2	0	0	0	1	27
Montgomery.....	0	1	0	0	0	0	0	0	0	0	-----



## City reports for week ended January 30, 1926—Continued

Division, State, and city	Scarlet fever		Smallpox			Tuber- culo- sis, deaths re- ported	Typhoid fever			Whoop- ing cough, cases re- ported	Deaths, all causes
	Cases, esti- mated expect- ancy	Cases re- ported	Cases, esti- mated expect- ancy	Cases re- ported	Deaths re- ported		Cases, esti- mated expect- ancy	Cases re- ported	Deaths re- ported		
WEST SOUTH CEN- TRAL											
Arkansas:											
Fort Smith.....	1	0	0	0	-----	-----	0	0	-----	1	-----
Little Rock.....	2	4	0	0	0	0	0	1	0	0	-----
Louisiana:											
New Orleans...	4	6	1	2	0	9	3	2	2	0	213
Shreveport.....	0	0	4	3	0	3	0	0	0	0	42
Oklahoma:											
Oklahoma City	2	2	3	0	0	0	0	0	0	0	17
Texas:											
Dallas.....	3	3	2	3	0	4	1	1	0	18	58
Galveston.....	0	2	0	2	0	0	0	0	0	0	18
Houston.....	1	1	0	19	0	7	0	0	0	1	59
San Antonio...	1	0	0	0	0	8	1	0	0	0	69
MOUNTAIN											
Montana:											
Billings.....	1	1	0	0	0	1	0	0	0	1	7
Great Falls.....	1	15	2	9	0	0	0	0	0	6	7
Helena.....	1	0	0	0	0	0	0	0	0	0	5
Missoula.....	1	1	0	0	0	0	0	0	0	0	5
Idaho:											
Boise.....	1	0	0	1	0	0	0	0	0	0	7
Colorado:											
Denver.....	12	8	3	1	0	3	1	1	1	69	76
Pueblo.....	2	1	0	0	0	1	0	0	0	0	14
New Mexico:											
Albuquerque...	1	8	0	0	0	4	0	0	0	11	10
Arizona:											
Phoenix.....	0	1	0	0	0	4	0	0	0	0	10
Utah:											
Salt Lake City.	4	2	4	0	0	3	0	1	0	13	53
Nevada:											
Reno.....	0	0	1	0	0	0	0	0	0	0	4
PACIFIC											
Washington:											
Seattle.....	11	35	4	4	-----	-----	0	0	-----	4	-----
Spokane.....	3	15	5	0	-----	-----	0	0	-----	1	-----
Tacoma.....	3	3	2	28	0	0	1	0	0	2	22
Oregon:											
Portland.....	6	18	11	10	0	2	0	1	0	0	-----
California:											
Los Angeles...	18	49	4	40	10	32	2	3	1	13	296
Sacramento...	1	3	1	2	0	1	1	0	0	0	29
San Francisco.	15	19	3	2	0	8	1	1	0	4	181

[illegible]

The following table gives the rates per 100,000 population for 103 cities for the five-week period ended January 30, 1926, compared with those for a like period ended January 31, 1925. The population figures used in computing the rates are approximate estimates as of July 1, 1925 and 1926, respectively, authoritative figures for many of the cities not being available. The 103 cities reporting cases had an estimated aggregate population of nearly 30,000,000 in 1925 and nearly 30,500,000 in 1926. The 96 cities reporting deaths had more than 29,250,000 estimated population in 1925 and more than 29,750,000 in 1926. The number of cities included in each group and the estimated aggregate populations are shown in a separate table below.

*Summary of weekly reports from cities, December 27, 1925, to January 30, 1926—Annual rates per 100,000 population—Compared with rates for the corresponding period of 1924-25<sup>1</sup>*

## DIPHTHERIA CASE RATES

	Week ended—									
	Jan. 3, 1925	Jan. 2, 1926	Jan. 10, 1925	Jan. 9, 1926	Jan. 17, 1925	Jan. 16, 1926	Jan. 24, 1925	Jan. 23, 1926	Jan. 31, 1925	Jan. 30, 1926
103 cities.....	149	129	145	170	167	145	159	142	160	142
New England.....	249	139	247	139	173	144	165	132	192	110
Middle Atlantic.....	140	124	130	182	187	151	174	137	155	130
East North Central.....	141	129	122	151	132	135	121	131	126	138
West North Central.....	171	154	139	283	247	253	193	206	243	261
South Atlantic.....	138	126	161	178	115	141	144	152	121	116
East South Central.....	84	109	110	52	84	67	74	73	89	42
West South Central.....	141	146	137	189	185	120	154	155	141	142
Mountain.....	102	109	231	182	148	127	231	155	129	264
Pacific.....	160	124	185	97	196	81	213	140	279	167

## MEASLES CASE RATES

103 cities.....	150	601	207	1,146	188	973	204	1,335	204	1,384
New England.....	367	2,373	381	3,094	424	2,867	479	2,572	467	2,845
Middle Atlantic.....	120	550	168	995	157	845	186	1,088	205	1,185
East North Central.....	277	736	301	1,761	327	1,302	352	2,068	340	2,088
West North Central.....	10	59	18	148	12	127	26	156	20	113
South Atlantic.....	50	460	79	1,289	42	1,356	38	2,477	35	2,280
East South Central.....	16	104	26	52	42	239	68	285	84	394
West South Central.....	9	0	4	0	22	17	13	13	13	26
Mountain.....	111	82	129	55	259	91	240	118	277	100
Pacific.....	75	46	185	65	152	51	52	65	17	73

## SCARLET FEVER CASE RATES

103 cities.....	284	221	307	270	344	285	356	292	346	287
New England.....	587	300	637	295	542	381	575	300	515	409
Middle Atlantic.....	285	166	323	210	292	237	325	237	299	235
East North Central.....	227	243	166	333	350	321	344	324	366	300
West North Central.....	549	498	733	580	731	548	780	669	756	709
South Atlantic.....	192	137	148	158	246	186	190	186	175	154
East South Central.....	158	99	210	119	168	140	163	202	200	109
West South Central.....	79	120	141	112	110	90	185	69	194	69
Mountain.....	157	246	370	237	518	319	296	373	250	255
Pacific.....	155	205	180	243	174	270	210	256	215	334

<sup>1</sup> The figures given in this table are rates per 100,000 population, annual basis, and not the number of cases reported. Populations used are estimated as of July 1, 1925 and 1926, respectively.

<sup>2</sup> Racine, Wis., not included.

<sup>3</sup> Hartford, Conn., and Kansas City, Mo., not included.

<sup>4</sup> Hartford, Conn., not included.

<sup>5</sup> Kansas City, Mo., not included.

Summary of weekly reports from cities, December 27, 1925, to January 30, 1926—  
Annual rates per 100,000 population—Compared with rates for the corresponding  
period of 1924-25—Continued

## SMALLPOX CASE RATES

	Week ended—									
	Jan. 3, 1925	Jan. 2, 1926	Jan. 10, 1925	Jan. 9, 1926	Jan. 17, 1925	Jan. 16, 1926	Jan. 24, 1925	Jan. 23, 1926	Jan. 31, 1925	Jan. 30, 1926
103 cities .....	41	23	55	33	56	47	68	35	65	41
New England.....	0	0	0	0	0	0	0	0	0	40
Middle Atlantic.....	3	1	3	0	10	2	6	0	9	1
East North Central.....	25	22	38	48	37	37	45	33	33	43
West North Central.....	125	18	213	65	157	51	175	36	189	62
South Atlantic.....	36	24	29	43	53	68	35	56	42	58
East South Central.....	341	73	362	47	200	57	620	47	590	21
West South Central.....	31	22	62	52	31	146	31	90	57	125
Mountain.....	46	36	28	36	55	18	92	27	46	18
Pacific.....	108	148	141	111	202	280	199	194	168	205

## TYPHOID FEVER CASE RATES

	36	10	32	13	20	11	17	13	17	8
103 cities .....	36	10	32	13	20	11	17	13	17	8
New England.....	24	7	14	31	24	2	19	9	7	45
Middle Atlantic.....	53	7	49	14	21	16	20	10	19	9
East North Central.....	26	6	13	11	22	8	10	3	10	4
West North Central.....	4	6	6	2	10	4	6	4	12	52
South Atlantic.....	38	11	52	9	19	8	12	8	35	9
East South Central.....	37	31	47	16	16	16	28	5	21	10
West South Central.....	35	47	66	22	66	13	40	151	57	17
Mountain.....	0	9	9	9	0	9	46	0	18	18
Pacific.....	11	8	25	11	6	13	14	16	3	11

## INFLUENZA DEATH RATES

	18	15	20	21	21	23	21	20	22	28
96 cities .....	18	15	20	21	21	23	21	20	22	28
New England.....	2	12	17	9	26	14	10	7	26	15
Middle Atlantic.....	21	10	20	18	18	16	20	14	16	18
East North Central.....	9	8	15	12	14	11	17	8	11	12
West North Central.....	8	15	13	8	2	19	19	10	15	7
South Atlantic.....	25	19	33	15	42	23	21	39	36	36
East South Central.....	68	31	42	83	42	88	58	57	68	73
West South Central.....	48	43	39	47	82	80	87	94	77	151
Mountain.....	37	27	18	46	28	64	9	18	37	73
Pacific.....	11	39	18	57	11	46	11	39	18	78

## PNEUMONIA DEATH RATES

	195	184	185	220	206	211	202	190	108	104
96 cities .....	195	184	185	220	206	211	202	190	108	104
New England.....	168	210	117	246	151	208	208	210	232	143
Middle Atlantic.....	225	186	227	239	259	236	233	227	229	217
East North Central.....	155	142	143	176	143	153	132	139	136	136
West North Central.....	91	117	87	140	104	125	117	81	114	106
South Atlantic.....	232	261	232	289	271	276	242	287	238	284
East South Central.....	278	259	268	332	173	285	294	228	278	208
West South Central.....	324	312	247	335	426	354	343	312	218	441
Mountain.....	222	264	222	127	240	328	314	273	305	164
Pacific.....	167	135	164	220	145	167	185	185	193	174

<sup>1</sup> Racine, Wis., not included.

<sup>2</sup> Hartford, Conn., and Kansas City Mo., not included.

<sup>3</sup> Hartford, Conn., not included.

<sup>4</sup> Kansas City, Mo., not included.

*Number of cities included in summary of weekly reports, and aggregate population of cities in each group, approximated as of July 1, 1925 and 1926, respectively*

Group of cities	Number of cities reporting cases	Number of cities reporting deaths	Aggregate population of cities reporting cases		Aggregate population of cities reporting deaths	
			1925	1926	1925	1926
Total.....	103	96	29,944,996	30,473,129	29,251,658	29,764,201
New England.....	12	12	2,176,124	2,206,124	2,176,124	2,206,124
Middle Atlantic.....	10	10	10,346,970	10,476,970	10,346,970	10,476,970
East North Central.....	16	16	7,481,656	7,655,430	7,481,656	7,655,436
West North Central.....	14	11	2,594,962	2,634,662	2,461,380	2,499,036
South Atlantic.....	21	21	2,716,070	2,776,070	2,716,070	2,776,070
East South Central.....	7	7	993,103	1,004,953	993,103	1,004,953
West South Central.....	8	6	1,184,057	1,212,057	1,078,198	1,103,695
Mountain.....	9	9	563,912	572,773	563,912	572,773
Pacific.....	6	4	1,888,142	1,934,084	1,434,245	1,460,144

# FOREIGN AND INSULAR

## THE FAR EAST

*Report for week ended January 16, 1926.*—The following report for the week ended January 16, 1926, was transmitted by the Far Eastern Bureau of the health section of the League of Nations' secretariat, located at Singapore, to the headquarters at Geneva:

Port	Plague		Cholera		Small-pox		Port	Plague		Cholera		Small-pox	
	Cases	Deaths	Cases	Deaths	Cases	Deaths		Cases	Deaths	Cases	Deaths	Cases	Deaths
Bombay.....	0	0	0	0	19	9	Saigon and Cholon.....	0	0	1	1	0	0
Madras.....	0	0	0	0	8	0	Haiphong.....	0	0	0	0	0	0
Rangoon.....	5	0	0	0	5	0	Hongkong.....	0	0	0	0	1	0
Karachi.....	0	0	0	0	7	5	Shanghai.....	0	0	0	0	0	23
Negapatam.....	0	0	1	0	0	0	Amoy.....	0	0	0	0	0	0
Colombo.....	1	1	0	0	2	0	Nagasaki.....	0	0	0	0	0	0
Basra.....	0	0	0	0	8	3	Yokohama.....	0	0	0	0	0	0
Singapore.....	1	1	0	0	2	1	Simonseski.....	0	0	0	0	0	0
Port Swettenham.....	0	0	0	0	0	0	Moji.....	0	0	0	0	0	0
Penang.....	0	0	0	0	0	0	Kobe.....	0	0	0	0	0	0
Batavia.....	0	0	0	0	0	0	Osaka.....	0	0	0	0	0	0
Soerabaya.....	2	2	0	0	2	2	Niigata.....	0	0	0	0	0	0
Samarang.....	0	0	0	0	0	0	Tsuruga.....	0	0	0	0	0	0
Belawan Deli.....	0	0	0	0	0	0	Hakodate.....	0	0	0	0	0	0
Padang (Sumatra).....	0	0	0	0	0	0	Keelung.....	0	0	0	0	0	0
Sabang (Rhio).....	0	0	0	0	0	0	Fusan.....	0	0	0	0	0	0
Macassar.....	1	1	0	0	0	0	Dairen.....	0	0	0	0	4	0
Sandakan (North Borneo).....	0	0	0	0	0	0	Adelaide.....	0	0	0	0	0	0
Manila.....	0	0	4	0	0	0	Brisbane.....	0	0	0	0	0	0
Zamboanga.....	0	0	0	0	0	0	Fremantle.....	0	0	0	0	0	0
Bangkok.....	1	0	26	16	3	1	Melbourne.....	0	0	0	0	0	0
Rockhampton.....	0	0	0	0	0	0	Sydney.....	0	0	0	0	0	0
Townsville.....	0	0	0	0	0	0	Port Said.....	0	0	0	0	0	0
Port Darwin.....	0	0	0	0	0	0	Mombasa (Kenya).....	0	0	0	0	0	0
Broome.....	0	0	0	0	0	0	Massowah.....	0	0	0	0	0	0
Port Moresby.....	0	0	0	0	0	0	Djibuti.....	0	0	0	0	0	0
Auckland.....	0	0	0	0	0	0	Mozambique.....	0	0	0	0	0	0
Wellington.....	0	0	0	0	0	0	Lourenco Marques.....	0	0	0	0	0	0
Christchurch.....	0	0	0	0	0	0	Durban.....	0	0	0	0	0	0
Invercargill.....	0	0	0	0	0	0	East London.....	0	0	0	0	0	0
Honolulu.....	0	0	0	0	0	0	Port Elizabeth.....	0	0	0	0	0	0
Suez.....	0	0	0	0	0	0	Cape Town.....	0	0	0	0	0	0
Alexandria.....	0	0	0	0	0	0	Port Louis (Mauritius).....	0	0	0	0	0	0
							Seychelles.....	0	0	0	0	0	0

## CANADA

*Communicable diseases—Week ended January 30, 1926.* The following table shows the numbers of cases of certain communicable diseases in six provinces of Canada during the week ended January 30, 1926. The information was supplied by the Canadian Ministry of Health.

	Nova Scotia	New Brunswick	Quebec	Ontario	Manitoba	Saskatchewan	Total
Cerebrospinal fever.....				1			1
Lethargic encephalitis.....				1			1
Smallpox.....				6	1	6	13
Typhoid fever.....			9	7			16

*Communicable diseases—Ontario—January, 1926 (comparative).—* During the month of January, 1926, communicable diseases were notified in the Province of Ontario as follows:

Disease	1926		1925	
	Cases	Deaths	Cases	Deaths
Cerebrospinal meningitis.....	6	2	1	1
Chancroid.....			11	
Chicken pox.....	1,010		971	
Diphtheria.....	288	16	318	25
German measles.....	63		21	
Gonorrhea.....	135		142	
Influenza.....		46	20	6
Lethargic encephalitis.....	2		5	3
Measles.....	1,305	3	1,222	7
Mumps.....	566		627	
Pneumonia.....		281		218
Polio-myelitis.....	2	1		
Scarlet fever.....	811	7	870	13
Septic sore throat.....	8		14	1
Smallpox.....	80		50	
Syphilis.....	114		113	
Tuberculosis.....	138	82	172	89
Typhoid fever.....	51	4	38	5
Whooping cough.....	240	3	181	6

*Smallpox distribution.*—The greatest numbers of cases of smallpox in the Province of Ontario, Canada, during the month of January, 1926, were reported at Toronto, with 23 cases; Admaston, with 11 cases; and Trenton with 7 cases. Smallpox was reported at 20 localities, the total number of cases being 80, as compared with 50 cases reported for the corresponding month of the year 1925.

*Communicable diseases—Ottawa—Year 1925.*—Communicable diseases were reported in the city of Ottawa during the year 1925, as follows: Diphtheria, 204 cases, with 15 deaths; measles, 275 cases, occurring mostly during the early summer, with 1 death; scarlet fever, 435 cases, of unusually mild type, with 1 death; tuberculosis, 100 deaths. Typhoid fever was stated to have occurred as scattered cases mostly from outside sources except for cases in September of local origin. These cases occurred in three households in different parts of the city; the source of infection was not determined. Population, 118,697.

*Measles—Regina, Saskatchewan.*—During the period December 27, 1925, to January 30, 1926, 1,285 cases of measles with 4 deaths were reported at Regina, Province of Saskatchewan, Canada.

## CANAL ZONE

*Communicable diseases—December, 1925.*—During the month of December, 1925, communicable diseases were reported in the Canal Zone, Colon, and Panama, as follows:

Disease	Canal Zone		Colon		Panama		Infected in outlying localities		Total	
	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases	Deaths
Chicken pox.....	2	-----	2	-----	10	-----	-----	-----	14	-----
Diphtheria.....	1	-----	3	-----	13	-----	1	-----	18	2
Dysentery.....	2	-----	1	1	8	2	-----	1	11	4
Hookworm.....	130	-----	2	-----	90	-----	72	-----	294	-----
Leprosy.....	1	-----	3	-----	2	-----	-----	-----	6	-----
Malaria.....	124	-----	2	-----	3	-----	36	11	165	11
Measles.....	6	-----	5	-----	9	-----	-----	-----	20	-----
Mumps.....	3	-----	-----	-----	-----	-----	1	-----	4	-----
Pneumonia <sup>1</sup> .....	-----	2	-----	5	-----	12	-----	5	-----	24
Polioomyelitis.....	-----	-----	-----	-----	2	-----	-----	-----	-----	-----
Tuberculosis <sup>1</sup> .....	-----	-----	3	-----	12	-----	-----	3	-----	18
Typhoid fever.....	-----	-----	1	-----	-----	-----	3	-----	4	-----
Whooping cough.....	3	-----	1	-----	1	-----	-----	-----	5	-----

<sup>1</sup> Only deaths reported.

## CANARY ISLANDS

*Plague—Las Palmas—January 7, 1926.*—A fatal case of plague was reported at Las Palmas, Canary Islands, January 7, 1926.<sup>1</sup>

## GREAT BRITAIN

*Cardiff, Wales—Correction—Smallpox.*—The report of 14 cases of smallpox with 8 deaths in Cardiff, Wales, during the week ended August 8, 1925, which was published in the Public Health Reports September 4, 1925, and in subsequent issues, was erroneous. The Medical Officer of Health of Cardiff states that only one case of smallpox was reported at Cardiff during 1925, and that case was imported.

## INDO-CHINA

*Communicable diseases—October, 1925.*—During the month of October, 1925, communicable diseases were reported in Indo-China, as follows:

Disease	Cases	Deaths	Disease	Cases	Deaths
Cerebrospinal meningitis.....	7	2	Mumps.....	65	-----
Cholera.....	2	2	Plague.....	8	7
Dengue.....	<sup>a</sup> 107	-----	Polioomyelitis.....	3	-----
Diphtheria.....	6	-----	Puerperal infection.....	2	-----
Dysentery.....	551	1	Smallpox.....	82	29
Influenza.....	15	4	Typhoid fever.....	14	3
Measles.....	20	-----			

<sup>a</sup> In epidemic form, benign.

<sup>1</sup> Public Health Reports, Feb. 5, 1926, p. 239.



*Occurrence according to locality and race.*—The cholera and plague occurrence was in the Province of Cochin-China. The 107 cases of dengue were notified in the Province of Laos. Of the smallpox cases, 43 cases with 14 deaths occurred in the Province of Annam, 2 cases with 1 death in the Province of Cambodia, 33 cases with 14 deaths in Cochin-China, and 4 cases in the Province of Tonkin. The cases were in natives; also, the cases of cholera and plague. Four cases of diphtheria were reported in Europeans.

*Leprosy.*—During the period under report 19 cases of leprosy were reported.

*Typhoid fever occurrence.*—Thirteen cases of typhoid fever were reported in natives, the greatest number of cases, viz, 8 with 2 deaths, occurred in the Province of Tonkin. One case occurred in a European in the Province of Cochin-China.

#### JAPAN

*Typhoid fever increase—Tokyo.*—Recent information shows an increase in typhoid fever prevalence at Tokyo, Japan, during the two weeks ended January 9, 1926, the number of cases and deaths being reported as follows: Week ended January 2, 1926—cases, 146; deaths, 18; week ended January 9—cases, 105; deaths, 22. For the week ended December 26, 1925, 50 cases with 15 deaths were reported. During the period June 28 to December 26, 1925, typhoid fever prevalence was noted at Tokyo, the largest numbers of cases being 103 cases reported for the week ended August 1, and 129 for the week ended October 3, 1925. The lowest number reported during the period was 35 for the week ended October 24, 1925. Population, census of October, 1925, 1,995,000.

#### LATVIA

*Communicable diseases—November, 1925.*—During the month of November, 1925, communicable diseases were reported in the Republic of Latvia as follows:

Disease	Cases	Disease	Cases
Cerebrospinal meningitis.....	4	Paratyphoid fever.....	1
Diphtheria.....	38	Rabies.....	2
Dysentery.....	1	Scarlet fever.....	241
Measles.....	117	Typhoid fever.....	67
Mumps.....	37	Whooping cough.....	51

## MALTA

*Communicable diseases—December, 1925.*—During the month of December, 1925, communicable diseases were reported in the island of Malta as follows:

Disease	Cases	Disease	Cases
Broncho-pneumonia.....	7	Measles.....	14
Chicken pox.....	10	Pneumonia.....	2
Diphtheria.....	4	Scarlet fever.....	1
Influenza.....	1	Smallpox.....	8
Lethargic encephalitis.....	2	Tuberculosis.....	14
Malta (undulant) fever.....	32	Typhoid fever.....	19

*Smallpox.*—From October 1 to December 28, 1925, 59 cases of smallpox were reported in the island. From October 1, 1925, to January 19, 1926, a total of 66 cases was reported, of which 15 were reported at Valetta and 22 at Floriana.

## MAURITIUS

*Plague—October, 1925.*—During the month of October, 1925, seven fatal cases of plague were reported in the island of Mauritius, of which two occurred at Pamplemousses, three at Port Louis, and two at Rivière du Rempart.

## PALESTINE

*Communicable diseases—November, 1925.*—Communicable diseases were reported in Palestine for the month of November, 1925, as follows:

Disease	Cases	Deaths	Disease	Cases	Deaths
Cerebrospinal meningitis.....	1	1	Tuberculosis.....	53	22
Diphtheria.....	6	-----	Typhoid fever.....	91	7
Measles.....	473	26	Typhus fever.....	3	-----
Scarlet fever.....	7	1			

Population, 1924—681,245, not including Bedouin tribes and military forces.

## TRINIDAD (WEST INDIES)

*Smallpox (reported as alastrim)—Port of Spain.*—Information dated January 22, 1926, shows the occurrence of an imported case of smallpox (alastrim) at Port of Spain, Trinidad, West Indies. The case occurred in a boy who arrived in the colony on a sloop from Yrapa, Venezuela, January 6, 1926, was taken ill with fever January 10, and developed a rash January 14, 1926. The contacts, 21 in number, were stated to have been vaccinated.

## UNION OF SOUTH AFRICA

*Plague—Kimberley District, Cape Province.*—During the week ended December 19, 1925, a case of plague, occurring in a native, was reported in Kimberley District, Cape Province, Union of South Africa.

*Typhus fever.*—Typhus fever was reported in the Union of South Africa during the two-week period ended December 26, 1925, in the Cape Province, Orange Free State, and Transvaal.

## CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER

The reports contained in the following tables must not be considered as complete or final as regards either the lists of countries included or the figures for the particular countries for which reports are given.

Reports Received During Week Ended February 19, 1926 <sup>1</sup>

## CHOLERA

Place	Date	Cases	Deaths	Remarks
India:				
Calcutta.....	Dec. 13-26.....	28	24	
Madras.....	Dec. 27-Jan. 2.....	28	13	
Philippine Islands:				
Manila.....	Dec. 27-Jan. 3.....	2	2	
Province—				
Bataan.....	Nov. 29-Dec. 12.....	14	11	Subject to later correction. Do.
Pampanga.....	Dec. 13-19.....	22	19	

## PLAGUE

Place	Date	Cases	Deaths	Remarks
British East Africa:				
Uganda.....	Oct., 1925.....	153	148	
Canary Islands:				
Las Palmas.....	Jan. 7.....	1	1	
Ceylon:				
Colombo.....	Dec. 27-Jan. 2.....	1	1	October, 1925: Cases, 8; deaths, 7.
Indo-China:				
Province—				
Cochin-China.....	Oct. 1-31.....	8	7	
Iraq:				
Bagdad.....	Dec. 27-Jan. 2.....	3	2	
Java:				
Batavia.....	Dec. 19-25.....	37	35	Province. October, 1925: Cases, 7; deaths, 7.
Mauritius:				
Pamplemousses.....	Oct. 1-31.....	2	2	
Port Louis.....	do.....	3		
Rivière du Rempart.....	do.....	2		
Netherlands India:				
Celebes Island—				
Makassar.....	Dec. 12.....			Epidemic.
Peru:				
Lima.....	Jan. 1-31.....	20		In hospital. In province some cases
Mollendo.....	do.....			Present with 12 or 15 cases reported unofficially.
Union of South Africa				
Cape Province—				
Kimberley District.....	Dec. 13-19.....	1		In native.

<sup>1</sup> From medical officers of the Public Health Service, American consuls, and other sources.

# CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued

Reports Received During Week Ended February 19, 1926—Continued

## SMALLPOX

Place	Date	Cases	Deaths	Remarks
Algeria:				
Algiers.....	Dec. 21-31.....	68		
Do.....	Jan. 1-10.....	64		
British East Africa:				
Mombasa.....	Dec. 13-19.....		1	
Uganda.....	Oct. 1-31.....	1		
Canada:				
Manitoba.....	Jan. 24-30.....	1		
Winnipeg.....	Jan. 31-Feb. 6.....	2		
Ontario.....				January, 1926. Cases, 80; corresponding period, year 1925—cases, 50. Present in 20 localities.
Admaston.....	Jan. 1-31.....	11		
Ottawa.....	Jan. 31-Feb. 6.....	1		
Toronto.....	Jan. 1-31.....	23		
Trenton.....	do.....	7		
Saskatchewan.....	Jan. 24-30.....	6		
Regina.....	do.....	1		
China:				
Amoy.....	Dec. 21-Jan. 2.....			Present.
Chungking.....	Dec. 27-Jan. 9.....			Do.
Foochow.....	do.....			Do.
Hankow.....	Jan. 10-16.....	1		
Hongkong.....	Dec. 20-26.....	1		
Shanghai.....	Jan. 3-9.....	9	16	Cases, foreign; deaths, foreign and native, in International Settlement and French Concession.
Swatow.....	Dec. 27-Jan. 9.....			Present.
Great Britain:				
England and Wales.....	Jan. 3-23.....	958		
Hull.....	Jan. 10-23.....	15		
Newcastle-on-Tyne.....	Jan. 10-16.....	1		
Nottingham.....	Nov. 22-Dec. 12.....	4		
Do.....	Dec. 27-Jan. 9.....	2		
India:				
Calcutta.....	Dec. 13-26.....	19	7	
Karachi.....	Dec. 27-Jan. 2.....	7	2	
Madras.....	do.....	3	1	
Rangoon.....	Dec. 13-19.....	1		
Indo-China.....				Oct. 1-31, 1925. Cases, 82; deaths, 20.
Province—				
Annam.....	Oct. 1-31.....	43	14	
Cambodia.....	do.....	2	1	
Cochin-China.....	do.....	33	14	
Tonkin.....	do.....	4		
Iraq:				
Bagdad.....	Dec. 27-Jan. 2.....	1		
Java:				
Batavia.....	Dec. 19-25.....	1		Province.
Malta.....	Nov. 1-30.....	8		Oct. 1, 1925-Jan. 19, 1926: Cases, 66—Floriana, 22; Valetta, 15.
Mexico:				
Aguaascalientes.....	Jan. 24-30.....		3	
Durango.....	Jan. 1-31.....		2	
Guadalajara.....	Feb. 1.....		1	
Mexico City.....	Jan. 17-23.....	2		Including municipalities in Federal District.
San Luis Potosi.....	Jan. 24-30.....		2	
Tampico.....	Jan. 21-31.....	2		
Portugal:				
Lisbon.....	Dec. 20-26.....	8		
Do.....	Dec. 27-Jan. 16.....	40		
Sierra Leone:				
Kono District.....	Dec. 16-31.....	5		In one locality.
Spain:				
Valencia.....	Jan. 10-16.....	3		
Trinidad (West Indies):				
Port of Spain.....	Jan. 22.....	1		In boy arrived on sloop from Yrapa, Venezuela, Jan. 6, 1926. (Reported as alastrim).
Tunisia:				
Tunis.....	Jan. 11-20.....	4		

# **CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued**

## **Reports Received During Week Ended February 19, 1926—Continued**

### **TYPHUS FEVER**

Place	Date	Cases	Deaths	Remarks
Argentina:				
Rosario.....	Dec. 1-31.....	1		
Bulgaria:				
Sofia.....	Dec. 25-31.....	1		
China:				
Hongkong.....	Dec. 27-Jan. 2.....	1		
Mexico:				
Durango.....	Jan. 1-31.....		1	
Mexico City.....	Jan. 10-23.....	19		Including municipalities in Federal District.
Union of South Africa:				
Cape Province.....	Dec. 13-26.....			Outbreaks.
Orange Free State.....	.....do.....			Do.
Transvaal.....	.....do.....			Do.

## **Reports Received from December 26, 1925, to February 12, 1926<sup>1</sup>**

### **CHOLERA**

Place	Date	Cases	Deaths	Remarks
India.....				
Calcutta.....	Nov. 1-23.....	101	89	Oct. 18-Nov. 23, 1925: Cases, 10,991; deaths, 6,498.
Do.....	Dec. 6-12.....	23	30	
Madras.....	Nov. 15-Dec. 26.....	146	57	
Rangoon.....	Nov. 8-Dec. 5.....	4	4	
Indo-China.....				
Province—				September, 1925: Cases, 9; deaths, 5. September, 1924: Cases, 7; deaths, 4. (European cases, 2.)
Annam.....	Sept. 1-30.....	2	2	September, 1924: None.
Cochin China.....	.....do.....	5	3	September, 1924: 1 case; 1 death.
Tonkin.....	.....do.....	2		September, 1924: None.
Japan.....	Aug. 30-Oct. 17.....	409		
Philippine Islands:				
Manila.....	Nov. 9-Dec. 5.....	8	6	
Do.....	Dec. 14-26.....	5	2	
Provinces—				
Bataan.....	Nov. 30-Dec. 13.....	10	8	
Bulacan.....	Oct. 18-Nov. 7.....	92	64	
Do.....	Nov. 23-Dec. 13.....	179	69	
Laguna.....	.....do.....	16	13	
Nueva Ecija.....	.....do.....	6	2	
Pampanga.....	Nov. 1-7.....	1	1	
Do.....	Nov. 23-Dec. 13.....	80	56	
Rizal.....	Sept. 27-Nov. 21.....	75	21	
Romblon.....	Dec. 7-13.....	23	12	
Russia.....	May-June.....	7		
Do.....	July-August.....	4		
Siam:				
Bangkok.....	Oct. 4-Nov. 14.....	108	68	
Do.....	Nov. 22-Dec. 19.....	209	117	
On vessel:				
Steamship.....	Oct. 3.....	9		Arrived at Bangkok, Siam; 9 cases in coolie passengers.

### **PLAGUE**

Argentina.....				Jan. 24-30, 1926: Six cases, occurring in interior provinces of Salta and Santa Fe.
Brazil:				
Bahia.....	Nov. 8-14.....	2		
Santos.....	Dec. 8-21.....		2	
British East Africa:				
Kenya—				
Kisumu.....	Nov. 22-Dec. 5.....	1	2	
Uganda Protectorate.....	September.....	103	85	
Canary Islands:				
La Laguna.....	Dec. 24.....	3	2	
Las Palmas.....	.....do.....	1		
Santa Cruz de Tenerife.....	Dec. 18-27.....	3		

<sup>1</sup> From medical officers of the Public Health Service, American consuls, and other sources

# **CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued**

**Reports Received from December 26, 1925, to February 12, 1926—Continued**

## **PLAGUE—Continued**

Place	Date	Cases	Deaths	Remarks
Ceylon:				
Colombo.....	Nov. 15-28.....	3	3	
Do.....	Nov. 29-Dec. 5.....			1 plague rodent.
China:				
Nanking.....	Nov. 15-Jan. 2.....			Prevalent.
Ecuador:				
Eloy Alfaro.....	Jan. 1-15.....	1		
Guayaquil.....	Nov. 1-Dec. 31.....	31	12	
Do.....	Jan. 1-15.....	15	5	Rats taken, Nov. 1-Dec. 31, 1925: 49,370; rats found infected, 281.
Recreo (country estate).....	do.....	1		Rats taken, Jan. 1-15, 1926: 11,864; rats found infected, 80.
Egypt:				Jan. 1-Dec. 9, 1925: Cases, 138.
Beni Suef.....	Nov. 18.....	1	1	Corresponding period, 1924: Cases, 365.
Fayoum Province.....	Dec. 3-9.....	1	1	
Greece:				
Athens.....	Nov. 1-30.....	18	4	Including Piræus.
Patras.....	Nov. 13-Dec. 12.....	4	1	
India:				
Bombay.....	Dec. 6-12.....	1	1	Oct. 18-Nov. 28, 1925: Cases, 7,420; deaths, 5,031.
Calcutta.....	do.....	1	1	
Karachi.....	Nov. 1-Dec. 19.....	4	3	
Madras.....	Oct. 25-Nov. 7.....	75	41	
Do.....	Nov. 15-21.....	35	22	
Rangoon.....	Oct. 25-Dec. 12.....	10	12	
Indo-China:				
Province—				
Cambodia.....	Sept. 1-30.....	11	11	September, 1925: Cases, 17; deaths, 10. September, 1924: Cases, fatal, 12.
Cochin China.....	do.....	6	5	September, 1924: Cases, 9; deaths, 9.
Iraq:				September, 1924: 1 case, 1 death
Bagdad.....	Dec. 13-26.....	4	1	
Java:				
Batavia.....	Oct. 24-Nov. 6.....	94	39	Province.
Do.....	Nov. 14-Dec. 18.....	232	219	
Cheribon.....	Sept. 27-Oct. 17.....		166	
Do.....	Nov. 15-28.....		59	
Djokjakarta.....	Oct. 20-Nov. 9.....			Epidemic in one locality.
Kediri.....	Dec. 7.....			Do.
Pekalongan.....	Sept. 27-Oct. 17.....		42	
Do.....	Nov. 8-28.....		80	
Rembang.....	Oct. 20.....			Do.
Soerabaya.....	Oct. 11-Dec. 5.....	37	37	
Tegal.....	Sept. 27-Oct. 17.....	6	6	
Do.....	Nov. 8-28.....		14	
Madagascar:				
Province—				
Itasy.....	Sept. 16-Oct. 31.....	20	20	
Moramanga.....	do.....	17	17	
Tananarive.....	do.....	174	159	
Town—				
Fort Dauphin.....	Sept. 16-Oct. 15.....	5	2	
Tamatave (port).....	Sept. 16-30.....	3	2	
Do.....	Oct. 16-31.....	4	4	
Tananarive.....	Sept. 16-30.....	2	2	
Mauritius Island.....	Sept. 20-Nov. 14.....	0	0	
Nigeria.....	August-September.....	349	267	
Peru:				
Huacho.....	Jan. 26.....	15		Port 60 miles north of Callao.
Russia:				
Do.....	May-June.....	67		
Do.....	July-August.....	139		
Senegal.....	September-October.....	45	25	
Siam:				
Bangkok.....	Aug. 23-Oct. 13.....	50	40	
Nov. 15-28.....		3	3	
Straits Settlements:				
Singapore.....	Nov. 1-Dec. 5.....	8	8	
Syria:				
Beirut.....	Nov. 11-20.....	1		
Union of South Africa:				
Cape Province—				
Middleburg district.....	Dec. 6-12.....	1		European.
Steynsburg district.....	Nov. 15-21.....	1		Native. On farm.
Orange Free State—				
Beshof district.....	Nov. 29-Dec. 5.....	1	1	In native.
Bothaville district.....	Dec. 6-12.....	1	1	Native. On farm.

# CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued

Reports Received from December 26, 1925, to February 12, 1926—Continued

## SMALLPOX

Place	Date	Cases	Deaths	Remarks
Aigeria:				
Algiers.....	Nov. 21-Dec. 20....	109	-----	
Arabia:				
Aden.....	Nov. 29-Dec. 5....	1	-----	Imported.
Argentina:				
Rosario.....	October.....	-----	1	
Australia:				
Queensland—				
Brisbane.....	Dec. 9-15.....	1	-----	
Brazil:				
Rio de Janeiro.....	Nov. 1-23.....	134	72	
Do.....	Dec. 6-26.....	65	26	
British East Africa:				
Kenya—				
Mombasa.....	Nov. 15-Dec. 12....	14	5	
Uganda Protectorate.....	Sept. 1-30.....	7	4	
British South Africa:				
Southern Rhodesia.....	Nov. 13-Dec. 23....	3	-----	
Canada:				
Alberta.....	Jan. 10-23.....	17	-----	Sept. 13-Jan. 2: In 7 Provinces, 186 cases. Jan. 3-23, 1926; cases, 115
Calgary.....	Dec. 13-19.....	1	-----	From Drumheller, vicinity of Calgary.
British Columbia—				
Vancouver.....	Jan. 4-10.....	1	-----	
Manitoba.....	Jan. 3-23.....	17	-----	
Winnipeg.....	Dec. 13-19.....	2	-----	
Do.....	Jan. 3-30.....	8	-----	
New Brunswick—				
Northumberland.....	Dec. 6-13.....	1	-----	
Ontario:				
Ottawa.....	Dec. 6-12.....	2	-----	December, 1925: Cases, 32; deaths, 1. Occuring in 15 lo- calities. January 3-23, 1926: Cases, 66.
Do.....	Jan. 3-9.....	1	-----	
Toronto.....	Dec. 27-Jan. 2....	1	-----	
Do.....	Jan. 3-23.....	21	-----	
Saskatchewan.....	do.....	15	-----	
Moose Jaw.....	do.....	2	-----	
Ceylon:				
Colombo.....	Dec. 6-12.....	1	-----	Port case.
China:				
Amoy.....	Oct. 25-Dec. 19....	-----	1	
Antung.....	Dec. 7-20.....	2	-----	
Chungking.....	Nov. 15-Dec. 26....	-----	-----	Present.
Poochow.....	Nov. 1-Dec. 26....	-----	-----	Do.
Hankow.....	Nov. 14-Dec. 26....	4	-----	
Hongkong.....	Nov. 22-23.....	3	-----	
Manchuria—				
An-shan.....	Dec. 6-12.....	1	-----	
Dairen.....	Oct. 19-Dec. 20....	67	15	
Mukden.....	Oct. 24-Nov. 15....	1	-----	
Tieh-ling.....	do.....	2	-----	
Nanking.....	Nov. 21-Dec. 26....	-----	-----	Do.
Do.....	Dec. 27-Jan. 2....	-----	-----	Do.
Shanghai.....	Oct. 25-Dec. 26....	30	31	
Do.....	Dec. 27-Jan. 2....	7	5	
Swatow.....	Nov. 22-Dec. 5....	2	-----	Do.
Tientsin.....	Nov. 1-Dec. 19....	-----	-----	
Egypt:				
Alexandria.....	Dec. 3-31.....	5	2	
France:				
September, October, 1925: Cases, 91.				
Gold Coast.....	September, 1925....	14	4	
Great Britain:				
England and Wales.....	Nov. 15-Dec. 26....	790	-----	
Hull.....	Dec. 27-Jan. 2....	203	-----	
Newcastle-on-Tyne.....	Dec. 27-Jan. 9....	14	-----	
Do.....	Nov. 29-Dec. 19....	6	-----	
Nottingham.....	Dec. 27-Jan. 2....	1	-----	
Sheffield.....	Dec. 13-26.....	5	-----	
Do.....	Nov. 22-Dec. 12....	7	-----	
Do.....	Dec. 20-26.....	3	-----	
Do.....	Dec. 27-Jan. 9....	2	-----	
Greece:				
Athens.....	Nov. 1-30.....	17	1	Oct. 1-31, 1925: Cases, 16.
India:				
Bombay.....	Nov. 8-Dec. 19....	22	16	Oct. 18-Nov. 28, 1925: Cases, 8,827; deaths, 1,915.
Calcutta.....	Nov. 29-Dec. 12....	29	18	

# CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued

Reports Received from December 26, 1925, to February 12, 1926—Continued

## SMALLPOX—Continued

Place	Date	Cases	Deaths	Remarks
India—Continued.				
Karachi.....	Nov. 1-21.....	23	—	
Do.....	Nov. 29-Dec. 5.....	4	2	
Do.....	Dec. 13-19.....	3	—	
Madras.....	Nov. 15-Dec. 26.....	17	5	
Rangoon.....	Oct. 25-Nov. 28.....	3	—	
Do.....	Dec. 6-12.....	2	1	
Indo-China.....				September, 1925: Cases, 122; deaths, 33. September, 1924: Cases, 78; deaths, 22.
Province—				
Annam.....	Sept. 1-30.....	47	9	September, 1924: Cases, 8; deaths, 2.
Cambodia.....	do.....	29	8	September, 1924: Cases, 16; deaths, 1.
Cochin China.....	do.....	28	16	September, 1924: Cases, 43; deaths, 19.
Tonkin.....	do.....	18	—	September, 1924: Cases 11.
Iraq.....				Sept. 6-Oct. 17, 1925: Cases, 81; deaths, 40.
Bagdad.....	Nov. 1-14.....	4	4	
Do.....	Nov. 22-Dec. 26.....	15	11	
Italy.....				Aug 2-Oct. 31, 1925: Cases, 38.
Rome.....	Oct. 12-25.....	1	—	
Jamaica.....				Nov. 27-Dec. 26, 1925: Cases, 52. Reported as alastrim.
Kingston.....	Nov. 27-Dec. 26.....	43	—	
Japan:				
Taiwan.....	Nov. 11-Dec. 10.....	3	—	
Yokohama.....	Dec. 14-20.....	1	—	
Java:				
Batavia.....	Oct. 24-30.....	1	—	
Do.....	Nov. 14-Dec. 18.....	6	—	
Cheribon.....	Nov. 8-14.....	1	—	
Kraksaan.....	Oct. 11-17.....	11	—	
Malang.....	do.....	2	—	
North Bantam.....	Oct. 4-17.....	4	—	
Pekalongan.....	Oct. 25-31.....	1	—	
Probolinggo.....	Oct. 11-17.....	1	—	
Serabaya.....	Oct. 11-Dec. 5.....	467	68	
South Bantam.....		1	—	
Tegal.....	Oct 4-10.....	9	1	
Malta.....	November.....	14	—	
Mexico.....				July-September, 1925: Deaths, 1,157.
Agascalientes.....	Dec. 13-Jan. 2.....	4	3	
Do.....	Jan. 2-23.....	—	4	
Durango.....	Dec. 1-31.....	—	1	
Guadalajara.....	Dec. 29-Jan. 25.....	—	6	
Mexico City.....	Nov. 28-Dec. 5.....	1	—	Including municipalities in Federal district.
Do.....	Jan. 3-9.....	1	—	
San Luis Potosi.....	Jan. 17-23.....	—	3	
Torreón.....	Nov. 1-Dec. 31.....	—	51	
Nigeria.....	August-September.....	103	1	
Persia:				
Teheran.....	July 23-Sept. 22.....	—	203	
Peru:				
Arequipa.....	Oct. 1-31.....	—	1	
Poland.....				Nov. 1-7, 1925: Cases, 8.
Portugal:				
Lisbon.....	Oct. 4-31.....	124	—	
Do.....	Nov. 16-Dec. 27.....	—	60	
Do.....	Nov. 14-Dec. 19.....	179	—	
Oporto.....	Nov. 22-Dec. 19.....	2	3	
Do.....	Dec. 27-Jan. 2.....	1	—	
Russia.....				May-June, 1925: Cases, 2,333. Later than previously published reports.
Do.....	July-August.....	760	—	
Siam.....				July 12-Sept. 5, 1925: Cases, 21; deaths, 6.
Spain:				
Madrid.....	Year 1925.....	—	18	
Malaga.....	Nov. 29-Dec. 5.....	—	2	
Do.....	Dec. 27-Jan. 2.....	—	1	
Valencia.....	Dec. 20-26.....	1	—	
Do.....	Dec. 27-Jan. 2.....	1	—	
Switzerland.....				June 28-Nov. 21, 1925: Cases, 62.
Lucerne.....	Oct. 1-Nov. 30.....	8	—	
Zurich.....	Dec. 27-Jan. 2.....	1	—	



# **CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued**

**Reports Received from December 26, 1925, to February 12, 1926—Continued**  
**SMALLPOX—Continued**

Place	Date	Cases	Deaths	Remarks
Tunisia:				
Tunis.....	Nov. 21-30.....	2	1	
Do.....	Dec. 11-31.....	10	1	
Do.....	Jan. 1-10.....	1		
Union of South Africa:				
Transvaal—				
Pretoria District.....	Dec. 6-12.....			Outbreaks. In native compound.

## **TYPHUS FEVER**

Algeria:				
Algiers.....	October-Dec. 20.....	4		
Argentina:				
Rosario.....	Oct. 1-31.....	1		
Bulgaria:				
Sofia.....	September-October.....	26	2	
Chile:				
Valparaiso.....	Nov. 29-Jan. 2.....		2	
China:				
Antung.....	Nov. 29-Dec. 27.....	5	1	
Manchuria—				
Harbin.....	Dec. 17-23.....	1		
Czechoslovakia:				
Prague.....	October, 1925.....	8		
Egypt:				
Port Said.....	Nov. 19-25.....	1		
Finland:				
Helsinki.....	July-October.....	4		October, 1925 One case.
France:				
Paris.....	Oct. 25-31.....	1		
Germany:				
Berlin.....	Nov. 1-30.....	11	2	
Greece:				
Athens.....	Dec. 26-Jan. 1.....	2		
Ireland:				
Cork County—				
Cork.....	Jan. 2-8.....	5		
Do.....	Nov. 14.....	1		
Dunmanway.....	Oct. 17.....	1		
Galway County.....	October, 1925.....	2		
Latvia:				
Riga.....				September-October, 1925: Cases, 9; deaths, 1.
Lithuania:				July-September, 1925. Deaths, 90.
Mexico:				
Agua Calientes.....	Dec. 14-19.....	1		
Durango.....	Dec. 1-31.....		1	
Guadalupe.....	Dec. 8-Jan. 4.....		3	
Mexico City.....	Nov. 22-Jan. 9.....	165		
Tampico.....	Dec. 21-Jan. 10.....	1	1	
Torreón.....	November, 1925.....		1	
Morocco:				
Morocco.....	August, 1925.....	3		
Palestine:				
Gaza.....	Dec. 18.....	1		
Jaffa.....	Dec. 1-7.....	1		
Nazareth.....	Nov. 3-9.....	1		
Safed.....	Nov. 24-30.....	1		
Tel-Aviv.....	do.....	1		
Peru:				
Arequipa.....	October, 1925.....		2	
Poland:				
Warsaw.....	Oct. 11-Nov. 14.....	142	16	
Rumania:				
Bucharest.....				July, 1925: Cases, 74; deaths, 9.
Russia:				May-June, 1925: Cases, 10,680.
Do.....				Later than previously published reports.
Do.....				July-August, 1925. Cases, 3,136.
Union of South Africa:				Oct. 1-31, 1925: Cases, 88; deaths, 7 (colored); cases, 7 (European population).
Cape Province.....	Oct. 1-31.....	63	5	Colored
Do.....	Nov. 8-14.....			Outbreaks in two districts
Middleburg District.....	Dec. 6-12.....	1		European. On farm.
Natal.....	Oct. 1-Dec. 5.....	1		
Orange Free State.....	Nov. 29-Dec. 5.....	23	1	
Do.....	Nov. 1-7.....			Outbreaks.
Bethulia District.....	Dec. 6-12.....			Do.
Bothaville District.....	do.....	1		Native On farm
Transvaal.....	Oct. 1-31.....	1	1	

## **YELLOW FEVER**

Gold Coast.....	September.....	1	1
Nigeria.....	August-September.....	2	1



2 7 1926  
TREASURY DEPARTMENT

# PUBLIC HEALTH REPORTS

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## SPECIAL ARTICLES

A Report on Four Cases of Tularaemia (Three Fatal) ·

A Community Health Program and Plan of City  
Health Department



WASHINGTON  
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# UNITED STATES PUBLIC HEALTH SERVICE

HUGH S. CUMMING, *Surgeon General*

## DIVISION OF SANITARY REPORTS AND STATISTICS

Asst. Surg. Gen. B. J. LLOYD, *Chief of Division*

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# PUBLIC HEALTH REPORTS

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## FOUR CASES OF TULARAEMIA (THREE FATAL) WITH CONJUNCTIVITIS

By H. L. FREESE, Bacteriologist, Virginia State Board of Health, and G. C. LAKE and EDWARD FRANCIS, Surgeons, United States Public Health Service

A double burial of father and daughter occurred July 7, 1925, in the L. family living on Wallen Creek, Lee County, Virginia. A son had been buried two days before. All had died of tularaemia, having been ill only 8 days, 8 days, and 6 days, respectively.

A daughter 6 years of age was the sole survivor of the outbreak, the four having become ill within a 24-hour period June 28-29. The mother and three other children remained well.

Accurate data bearing on the direct source of infection and its mode of entry into the body are lacking, due to an unusual premeditated reticence on the part of the mother. She would give no essential information other than that a common article of food on the family table had been rabbits which the dog had caught in the field; that the rabbits were dressed either by her husband or by herself; that they were fried in grease and eaten by all members of the family except herself; that the cat had often caught rabbits, some of which were nearly full grown, and had brought them in for her kittens. From one apparently authentic source information was obtained that an epidemic among rabbits had occurred on Wallen Creek in May, 1925.

The father (Mr. P. J. L.), age 37 years, his daughter (C. L.), age 7 years, and his son, age 2 years, became suddenly ill on the evening of June 28, 1925, and another daughter (N. B. L.), age 6, became ill on the evening of June 29. The onset in all cases was sudden and accompanied with fever; the father was nauseated, complained of headache, and had chills, the three children vomited, and the boy, in addition, had convulsions.

Within 24 hours after the onset, all had axillary temperatures of 103° to 104° F., conjunctivitis, and swollen lymph glands in the region of the parotid gland which were bilateral except in the case of N. B. L., in which the swelling was leftsided; in the cases of C. L. and the son the eyelids were so swollen as to require separation by the fingers in order to view the sensitive globe; there was some exudate escaping from the eyes. There was no skin eruption, nor throat symptoms other than some redness.

During a consultation of two physicians on July 2 the father was delirious and the children were stuporous. The cervical and axillary lymph glands were much enlarged in all the cases; the inguinal glands were not involved; all had temperatures between 103° and 104° F.; there was no evidence of lung involvement; there was no rigidity or spasticity suggestive of meningitis. All manifested the picture of an extreme grade of febrile intoxication.

The father, one daughter (C. L.), and the son grew progressively worse; the son died July 4, and the father and daughter died July 6. All were buried without necropsy having been performed in any case.

The sole survivor (N. B. L.) was visited in her home a few hours after the burials on July 7. Her temperature was 102.8° F., the left eye was swollen, there was marked enlargement of the lymph glands in the left superior cervical region, the throat was slightly reddened, and there was no skin rash. She was conscious but apathetic.

#### ISOLATION OF CULTURE FROM THE SURVIVOR

Swabs taken from the throat and nose of N. B. L. on July 7 were used to inoculate culture media, and on the following day the swabs were washed in saline solution and the pooled washings were used for subcutaneous inoculation of a guinea pig, which died July 13 with typical lesions of tularaemia in the spleen and liver. Portions of the spleen and liver were kept in glycerin in the ice box until July 17 and then rubbed on the shaved, abraded skin of the abdomen of a guinea pig, which died July 22 with the typical lesions of tularaemia, viz, spotted condition of the spleen and liver and cascation of the inguinal lymph glands. The spleen, liver, lungs, and inguinal glands were placed in pure undiluted glycerin and sent to the Hygienic Laboratory, United States' Public Health Service, at Washington. They arrived July 24 and were injected subcutaneously into four sets of guinea pigs, two guinea pigs being used for each kind of tissue. Six of the guinea pigs died acutely with typical lesions of tularaemia—those receiving the spleen tissue remaining well. Transfers were made by subcutaneous injection and by scarification from the above-mentioned 6 guinea pigs to 14 others, all of which died with typical lesions of tularaemia from which *Bacterium tularensis* was isolated in pure culture on coagulated egg yolk and glucose cystine agar.

On August 4, 1925, N. B. L. and her mother were visited. The child's condition was much improved since last seen on July 10, on which date she was unable to see with her left eye; her sight now seemed normal. Her mother stated that a swelling appeared beneath the left eye about July 7 and ruptured into her nose on July 16, when



a "tablespoonful of corruption" escaped from her left nostril, which continued to discharge for several days, during which time the swelling rapidly disappeared.

Examination showed a small, elongated, slightly tender swelling extending downward from the inner canthus of the left eye in the line of the lachrymal duct (purulent dacryocystitis). The conjunctiva of both eyes were clear. A slightly tender, fluctuating tumor about 1 by 1½ inches was present at the angle of the left jaw (parotid lymph gland). Further forward, on the line of the body of the jaw, was another swollen and much firmer gland (submaxillary lymph gland). There was no definite enlargement of the lower cervical and axillary glands. Results of examination of the mouth and throat were negative, but the examination was unsatisfactory because the child could not open the mouth very far. The child was somewhat emaciated, weighed about 30 pounds, and had a listless expression; axillary temperature was 102° F. Bloody purulent fluid obtained August 4 by incision of the abscess at the angle of the jaw was tested at the Hygienic Laboratory by injection subcutaneously into guinea pigs. The pigs remained well.

*Agglutination.*—Blood serum collected August 4 from N. B. L. was tested at the Hygienic Laboratory and found to agglutinate *Bacterium tulareense* in all dilutions from 1:10 to 1:1280, but not in higher dilutions.

*Noncontagiousness.*—Four members of the family remained well. The neighbors passed freely to and from the house during the illness. Both burials were public, and each was attended by about 50 persons. There was no serious illness in the neighborhood before or after the outbreak.

*Conjunctival inoculation.*—Guinea pigs and rabbits, into the conjunctival sacs of which minute amounts of virulent cultures of *Bacterium tulareense* were gently dropped, care being taken to avoid all irritation of the conjunctiva, developed severe conjunctivitis and enlargement and caseation of the regional lymph glands and died acutely with typical lesions of tularaemia. The culture employed was one obtained from the case N. B. L.

*Insufficient cooking.*—An experimental rabbit dead of tularaemia was skinned; the femero-pelvic joints were divided; the feet were discarded, and a transverse division was made through the upper lumbar region, thus giving three muscular pieces for frying; these pieces were rolled in graham flour and fried in grease in a pan over a hot gas flame for 10 minutes. When thought to be sufficiently cooked, as evidenced by a brown crust, the pieces were carved with a knife, the successive layers of muscle appearing white and cooked until very near the bone some red strands of muscle were seen, surrounded by red juice; the red muscle was injected into two guinea

pigs and the red juice was injected subcutaneously into four pigs, all of which died acutely with typical lesions of tularaemia.

One can not escape the conclusion that an infected rabbit, if insufficiently cooked, would be dangerous as food.

*Thermal death point.*—Heating at 56° to 58° C. kills the organism in cultures and in spleen tissue in 10 minutes. Sufficient cooking renders infected tissues harmless as food.

#### SUMMARY AND CONCLUSION

Tularaemia was demonstrated by animal inoculation and by cultural and serological methods in the sole survivor of an outbreak of a glandular febrile affection with conjunctivitis occurring in four members of a family, three of whom died without tests for tularaemia having been made, either before or after death.

The four cases became ill within a 24-hour period and, clinically, they constituted a group which presented the same symptoms and little short of the same course and termination.

Although details as to the source and method of infection are wanting, there is abundant evidence of contact with rabbits, and the proof of the cause of illness of one of the group justifies the conclusion that all were cases of tularaemia.

Whether certain members of the family in dressing infected rabbits transferred the infection by their hands to their conjunctiva or whether insufficiently cooked rabbit was eaten are matters of conjecture only, but the evidence seems to point to primary infection of the conjunctivae.

*Acknowledgments.*—To Dr. B. T. Young, Duffield, Va.; Dr. C. W. Young, Pennington Gap, Va.; and Dr. W. R. Culbertson, health officer of Norton, Va., we are indebted for clinical observation of the cases.

### A COMMUNITY HEALTH PROGRAM<sup>1</sup>

By HUGH S. CUMMING, Surgeon General, United States Public Health Service

In our present highly developed civilization, the complexities of community existence have added many difficult problems in the management of municipal affairs. The growth of large centers of population led to many political, economic, and social relations that have taxed our administrative abilities. Out of all the problems that have concerned mankind during all the ages, health has been a very important factor in determining the progress of human affairs.

The history of medicine reaches back to the early ages, when magic, evil spirits, and religious superstitions pervaded the teachings of those

<sup>1</sup> Address given before the Mid-Atlantic Division of the American Nurses Association, Washington, D. C., Dec. 3, 1925.

periods. The fetters of these traditions have finally been broken, although their influence has not been entirely removed.

In order fully to appreciate the present status of public health work, certain of the circumstances that have determined the course of events during the past 50 years should be kept in mind.

#### THE PUBLIC HEALTH MOVEMENT

Fifty years ago, the "filth theory of disease" had dominated, for generations, practically all health work. Sanitation of the environment and shotgun quarantine methods were relied upon to control epidemics. Some attention, however, had been given to water supplies and sewage disposal. The removal of garbage and the abatement of nuisances of all sorts occupied a prominence out of all proportion to their real importance. A beginning had been made in the registration of births and deaths.

Twenty-five years later the influence of the "germ theory of disease" had introduced a more scientific attempt to combat the spread of communicable diseases. The specific causes of many of the more important of these diseases had been demonstrated and our knowledge of bacterial and parasitic infections was increasing. Disinfection played a prominent rôle during this period.

Today, at the close of the first half-century of the modern public health movement, we have a very considerable knowledge of communicable diseases and immunity. We have recognized the importance of infant welfare and school health supervision, and the physician, the sanitary engineer, and the nurse are slowly displacing the old-style sanitary policeman. We are beginning to apply scientific methods of research to many of the problems of administrative health practice.

There have been three rather distinct phases or tendencies that have characterized the public health movement and influenced the general trend of administrative practice. The first period of *suppression* preceded the second era of *prevention*. A third phase, that of *health promotion*, is already gaining ground.

#### LACK OF STANDARD PRACTICE

Our principles of local self-government have encouraged each community to administer its own affairs quite independently. The States, under the provisions of the Constitution, reserved to themselves certain so-called "police powers," which are the authority for the regulation of the internal affairs of the State, including the health, happiness, and comfort of its inhabitants. In turn, the State delegates certain prerogatives of its police powers concerning health to the local governments, which organize and administer their affairs with only certain minimum restraints from the State.

As a result of this system of government, each community has provided itself with a public health service that was intended to meet local conditions and requirements.

A comparatively recent survey of the 100 largest cities in the United States was conducted by the United States Public Health Service, cooperating with a committee of the American Public Health Association, and a somewhat similar survey of 86 cities was completed in 1924 by the American Child Health Association.

A review of the information collected by these surveys warrants the conclusion that while there has been considerable progress in administrative health practice, there is still found a striking lack of uniformity in practically every activity of local health service. Many of the methods and procedures intended to accomplish the same purpose are obviously inconsistent and frequently are not in accord with our present knowledge.

#### ATTEMPTS TO STANDARDIZE PUBLIC HEALTH PRACTICE

During the past few years, several attempts have been made to establish the relative values of the more important activities of municipal health services. The tendency has been to set up arbitrary standards of practice and to devise a sort of "yardstick" that would measure the relative values of the various procedures.

In the endeavor to encourage a healthy competition and bring about better health service generally, the Committee of the American Public Health Association, with the assistance and cooperation of other agencies and a group of interested local health officers, finally adopted a tentative "Appraisal Form for City Health Work."

It is too early to make any predictions concerning the possible benefits to public health work that may follow such a method of scoring. If it succeeds in encouraging a desire for careful self-analysis and comparative studies of present methods and practices, it will render a very real service.

Recognizing the possible value of standardization, when the items involved are subject to values that can be definitely determined, the temptation to standardize should not distract attention from the necessity for careful research and scientific investigation of the facts concerned in the methods now in use or that may be developed in the future. The true relative value of many of these activities can be demonstrated only by careful investigation and interpretation of all the information and data that can be collected. It is only by this process of scientific study, that real progress will be made. Revisions and reorganizations of existing practices should be attempted only on this basis.

## URGENT NEED FOR CAREFUL RESEARCH

Several of the more fundamental principles of public health practice have already been quite definitely standardized or rather universally adopted. Reference is made to such items as the standard certificates for births and deaths; the international classification of the causes of deaths; the model law for morbidity reporting; the proposed standard methods for the control of communicable diseases; standard methods for the examination of water and sewage, milk and shellfish; and certain standards to determine the purity and potency of vaccines, antitoxins, and analogous products.

There are many other problems involved in modern public health work concerning which there exists rather universal agreement as to principle or theory, based largely upon "common consent" or "average experience," but these opinions are often unsupported by careful scientific proof. Before any of these theories or principles can be satisfactorily established, all the available information and data must be collected and interpreted. Out of the experiences of large groups of cities, there is already accumulating an enormous mass of data which, if properly interpreted, would bring about a revision of many of the ideas and theories that are now influencing the general trend of many activities.

Every health officer and all professional personnel engaged in public-health work should learn to develop this spirit of scientific inquiry.

## SEARCH FOR AN "IDEAL" HEALTH ORGANIZATION

When anyone attempts to propose an "ideal" plan of organization for adequate community health service for a city of a given size, it might seem logical to review the records of a group of apparently progressive communities and to pick out the city with the most highly developed service and offer that as the ideal or standard for the group. In attempting to do this, one would soon reach the inevitable conclusion that no two cities have followed the same scheme of organization.

The exact plan of local health service that will fulfill all the essential requirements of any selected community must be adapted to the circumstances and conditions peculiar to that community. Because of climatic, geographic, political, social, racial, economic, or other purely local characteristics, the vital health problems of one city may well differ from the particular problems that are of special concern to some other city. This idea has led at times to the conclusion that it is impracticable to propose any standard or uniform basis for health department organization.

As a matter of fact, however, many of the obstacles to be overcome in developing an adequate and comprehensive plan for community

health service are imaginary rather than real ones. Man is subject to certain diseases and disturbances that obey rather fixed laws, irrespective of purely local conditions.

In spite of such considerations, the essential public health problems in different cities differ not so much in their nature as in the comparative magnitude of the problems presented. There are certain basic requirements that should be fulfilled in practically every community, so that it is possible, therefore, to propose a more or less "ideal" health service that will at least represent minimum requirements.

#### A CITY OF 100,000

In the report on the surveys of 1920, prepared by the American Public Health Association, there was presented a plan for an "ideal" health department for a city of 100,000 population. This plan represented, in the opinion of the authors, the best current practice in each special line of activity, based on the average practice in the 83 large cities, or on the practice of cities which appeared to excel in some particular activity. The details of this proposed minimum standard for the larger cities were clearly set forth.

#### FOR A CITY OF 50,000

In the recently published report on the survey of the 86 smaller cities by the American Child Health Association there is included a somewhat similar plan of organization for a city of 50,000 population.

In both of these plans the same essential items of service are included, and the scheme of organization for the central health department is quite similar. In general, the plan of organization includes the following administrative divisions, the designation of which indicates the principal functions that are included:

#### HEALTH DEPARTMENT ORGANIZATION

1. Bureau of Administration:
  - (a) Administration.
  - (b) Vital statistics.
  - (c) Public health education.
2. Bureau of Communicable Disease Control:
  - (a) Tuberculosis.
  - (b) Venereal diseases.
  - (c) Epidemiology (other preventable diseases).
3. Bureau of Child Hygiene:
  - (a) Maternal and prenatal care.
  - (b) Infant and preschool welfare.
  - (c) School health supervision.
4. Bureau of Laboratories.
5. Bureau of Public Health Nursing.
6. Bureau of Milk and Food Control.
7. Bureau of General Sanitation.

In such a plan of organization, there are included the essential basic functions of an adequate community health service. They represent legitimate obligations of the central government, although in practice it is frequently found that several of these activities are actually carried on either by voluntary agencies or by some division of government other than the health department. For example, voluntary agencies, such as visiting nurse associations, antituberculosis societies, and the like, still furnish more or less of the service provided in many cities for prenatal, infant, and preschool welfare and the care of tuberculosis. School medical supervision is conducted frequently by the board of education. Some of these activities will probably be more effectively carried on by voluntary agencies for the time being and until the central authorities are able to take on greater responsibilities.

The budget necessary to carry on the essential services proposed for these two groups of cities varies from \$1.95 per capita for the average city of 100,000, to \$1.54 for a city of 50,000, exclusive of hospital service for communicable diseases. If hospital care is included, the per capita cost becomes \$2.35 and \$1.64, respectively.

These figures represent the cost of all the health service that is considered necessary, including the cost of work that may be carried on by agencies other than the official health department. In the group of 100 large cities, the per capita cost of adequate service, given as \$1.95, is at least four times the average budget allotted to these municipal health departments at the present time.

I do not intend to convey the impression that the outline of divisional organization that has been presented is intended as a model that should be followed by all of the cities above 40,000 population. Details of administration will vary, the number of independent bureaus or divisions depending partly at least upon the availability of trained personnel, but every community should make reasonably adequate provisions to carry on all of the activities mentioned, either through central authorities or local voluntary agencies. The facilities required for any particular activity will, of course, depend upon local needs and requirements.

As we pass to the smaller cities, we find more and more of the work being carried on by agencies other than the health department. There is a tendency, however, slowly developing, for the central authorities to assume more responsibility and to take over, gradually, activities that have been organized by private agencies.

In the smaller towns, and particularly in the rural sections, provisions for local health service are much less adequate than the service now established in the incorporated cities. After several years of activity on the part of the United States Public Health Service and the International Health Board, working in

cooperation with State and county boards of health, only a beginning has been made in securing whole-time health service for rural communities.

#### ESSENTIAL ELEMENTS FOR COMMUNITY HEALTH SERVICE

If a community's conscience is sufficiently aroused by some emergency, such as a severe epidemic, and there is created a desire to provide itself with reasonably adequate health service, what procedure should be adopted?

The first logical step would be to arrange for a comprehensive and detailed public health survey. Health is a business enterprise of first importance to any community. No business, either public or private, can hope to determine its assets and liabilities without a thorough inventory. The public health survey is the only practical means by which a community can discover its essential health problems, and, by careful interpretation, develop a sound policy and well-balanced program suited to actual needs.

No attempt should ever be made to reorganize or plan a community health program on general principles or by endeavoring to further expand or develop some special activity that may, for the moment, seem urgent or popular. The ultimate success of local health service depends chiefly upon a sound basic policy and a well-balanced program with adequate funds and trained and experienced personnel under competent centralized authority.

#### POPULAR HEALTH EDUCATION

Notwithstanding the very commendable progress that has been made in developing the technique of modern public health administration, there is considerable unfinished business. Public health authorities have recognized the limitations of police power in controlling disease or promoting better health. This has introduced a new activity, usually referred to as popular health education. Suppressing and preventive measures, compulsorily enforced, will still be necessary; but we have learned that the individual will contribute more to the health of his community if he can be taught to practice the essential principles of health, hygiene, and sanitation.

The field of popular health education has not been half explored. Many methods and devices have been tried, but these efforts have been directed chiefly toward mass teaching. A direct appeal to the individual seems to promise more encouraging results; and of all the agencies that have established effective and extensive contacts with the individual, none has been as successful as the public health nurse.



## THE PUBLIC HEALTH NURSE

The first municipal nursing service seems to have been established in Los Angeles in 1898, although private district nursing for the unhospitalized sick had been provided in Boston as early as 1887. Prior to 1914 efforts in visiting nursing were largely pioneer in character and the service increased gradually from 130 nurses in 1901 to approximately 3,000 nurses in 1912, the majority being engaged by private organizations.

Municipal nursing apparently proceeded more slowly until after the World War, which created a greater demand for home nursing. In 1918 the United States Public Health Service, for the first time in its history, established a section of public health nursing, and through the cooperation of the American Red Cross it was possible to provide a nursing service in the extra cantonment areas. This was the first introduction of many communities to an experience with a municipal nursing service.

In 1924 there is a record of approximately 12,000 public health nurses engaged in both official and private capacity. There were about 6,000 nurses enrolled in municipal work in 99 of the 100 large cities surveyed in that year. This appears to leave only about 6,000 nurses to be distributed in all of the other communities.

This rather sketchy review of nursing activities is presented merely to indicate that, as a municipal function, it is a comparatively new activity. However, health authorities have gradually become convinced that the public health nurse is one of the most important links in the chain of efficient public health administration. As a field agent of the health officer, the nurse has undoubtedly made the strongest appeal and established a more direct and effective contact with the individual than any other emissary of his department.

The science of municipal public health nursing and the art and craft of her field service have not become very definitely established, however. Her prescribed duties are still rather vague and she has been assigned to almost every possible variety of service. Certain principles of municipal nursing are developing, but as yet there appears to be no accepted measure for the value of the services she renders, either in respect to quality or quantity. Judging from the recent surveys that have been made, no general agreement has been reached as to the logical position of the nursing service in the organic structure of the health department.

It has been said that public health work to-day in any community can be measured by the extent to which public health nursing has been developed. To a certain extent this is probably true; but opinions as to what constitutes an adequate nursing service seem to differ rather widely. The theoretically effective ratio is usually 1

nurse to 2,000 or 3,000 population, and yet in the 99 large cities for which records were available the average ratio for the whole group was only 1 to 5,000 approximately. It varied from 1 to 6,300 in the group of larger cities to 1 to 5,400 in the smaller cities.

In the "ideal" plan of organization for a city of 100,000, proposed by the committee of the American Public Health Association in 1923, 30 nurses were considered necessary to provide adequate preventive work, or an increase to 50 nurses if bedside care on an hourly basis is provided. Even with more conservative provisions, it is apparent that the majority of cities at the present time are inadequately equipped to provide even a reasonably satisfactory service.

In the large cities surveyed in 1924 by the Public Health Service, the municipal expenditures for public health nursing varied from 1.5 cents to 36.6 cents per capita, with an average of 15.4 cents, as compared with 9.5 cents for the same group in 1920. It is evident that such an expenditure falls far short of the average cost per capita of 83 cents proposed in the "ideal" plan. It should be remembered, however, that this plan included the cost of private as well as official nursing, and that the figures for the 1924 surveys include only the municipal service. It should also be noted that the estimate of 83 cents per capita is equal to or greater than the sum which is now being expended for all strictly health work by many cities, including nursing services. This does not mean that the estimate for nursing is high, but that the expenditure for health work is low.

The problem of organization does not seem to be satisfactorily adjusted. Our surveys indicate that only 25 out of 82 of the larger cities reporting in 1924 had organized separate bureaus or divisions of nursing. In 57 cities the nursing force was assigned to various services. There are many conditions and requirements to be considered in connection with organization plans, and further experience and careful study will undoubtedly be necessary. Whatever organization is proposed, many authorities appear to agree that the nursing service should be under the direction of the health officer himself in the smaller cities, or under competent medical supervision. Central supervision by an experienced administrative supervisor or director of nurses is desirable.

There has been considerable discussion concerning the relative importance of the specialized and the generalized district plan of nursing, and arguments have been advanced in favor of both plans. There is a tendency, perhaps, to adopt a generalized district service in the larger cities studied in 1924, and this seems to be the better plan.

The relation of the municipal service to the existing voluntary health agencies is an important one. Much of the work carried on in many communities will continue to be given by the voluntary

agencies for the present. There should, however, be premitted no real division of responsibility, and the general supervision of all the service that is rendered to the community should be centralized under the direction of the health officer in order to guarantee a well-balanced program.

One other important consideration will be mentioned in conclusion, and that is the qualifications of a successful public health nurse. In order to undertake the multiplicity of duties that have been assigned to her, she should have, in addition to an adequate professional training, both in nursing and public health methods, a healthy body and human interest in her work, "tact, insight, a feeling heart, a quick mental grasp of persons and situations, dignity, persuasiveness—these things come by grace of nature."

I know of no nobler calling in the professional field of public health, no service that gives promise of such benefits to the individual, as that of a successful public health nurse.

#### SUMMARY

The modern public health movement, spanning a period of 50 years, has progressed from attempts merely to suppress disease to an era of prevention, and, finally, has recognized the necessity for health promotion activities.

Notwithstanding the commendable progress that has been made in public health practice, recent surveys of 186 large cities have disclosed a great variety of method and procedure, many of which are inconsistent and not in accord with our present knowledge.

There is a growing tendency to encourage standardization of public health methods and to establish arbitrary measures for the relative values of various elements of practice. Standards are undoubtedly desirable but the relative values of many items can be definitely determined only after careful scientific study and interpretation of details and a demonstration of the principles involved, preliminary to any attempt to establish relative values or to revise present methods.

Plans for the organization of an adequate health service have been proposed for average cities of 50,000 and 100,000 population, respectively, as a result of recent surveys. These plans represent minimum requirements that are considered reasonable and necessary for every community and include services rendered by both public and private agencies. Voluntary health agencies will probably continue to provide some of the service for the present, and until the public authorities are able to assume greater responsibilities.

Reorganization of public health activities in any city should be based upon a careful, comprehensive survey setting forth the resources and needs of the community. Such an inventory is necessary in order to develop a well-balanced program.

Health authorities have recognized the fact that police power enforcement of compulsory laws for suppressive and preventive health work while still necessary, must be supplemented by greater cooperation on the part of individual citizens. A greater emphasis is being placed upon popular health education as a means of encouraging the individual to practice the essential principles of hygiene, health and sanitation.

In the promotion of popular health education, no agency has made better contacts with the individual or a greater or more effective appeal than the public health nurse.

Public health nursing, as a municipal function, is a relatively new activity. The first municipal nurse was engaged by the City of Los Angeles in 1898. Private district nursing had already been expanding for several years. The World War served to stimulate a greater demand for both municipal and private visiting nursing services.

In 1924 there is a record of 12,000 public health nurses, municipal and private. Six thousand of these were engaged in municipal service in 99 of the largest cities (1923). Health authorities have gradually recognized the important rôle played by the public health nurse.

The science and art of public health nursing have not been definitely established. The duties of the public health nurse are still vague and varied. There is a tendency to adopt the plan of generalized district nursing. The ratio of 1 nurse to each 2,000 or 3,000 population is usually recommended. On this basis, the majority of cities to-day are inadequately equipped. Many of the problems concerned with public health nursing require careful scientific study, demonstration of principles and definition of services rendered.

The relation of municipal to private nursing agencies is an important one. There should be no division of responsibility and the general supervision of all services to the community should be centralized under the general direction of the local health officer to guarantee a well-balanced program.

### **VIRGINIA HEALTH COMMISSIONER APPEALS AGAINST RETRENCHMENT IN HEALTH WORK**

In order to inform the General Assembly of Virginia regarding the needs of the State board of health for its proper operation and the minimum requirements for a continuance of its work based on present methods and achievements, Dr. Ennion G. Williams, State health commissioner, prepared a statement for the finance and appropriations committees of the senate and house.<sup>1</sup> In this statement there are concisely presented the financial needs of the board if certain

<sup>1</sup> Virginia Health Bulletin, published by the Department of Health of Virginia, February, 1926.

health standards are to be maintained and certain important branches of public health work are to be continued.

A reduction in the appropriation for rural health work is shown to mean an actual reduction for this work of four dollars for every dollar the State appropriation is curtailed, since the amount appropriated by the State is supplemented approximately to this extent by the International Health Board and the localities in which the work is done. Rural health work is stated to be especially important in Virginia as there is a shortage of physicians in the rural sections of the State; and as for dental conditions, it is said that 40 counties of the State have a total of only 41 dentists—15 counties being without a dentist. Since 1921, when dental clinics were first held in the State, clinics have been held in 70 counties, at which 41,816 children were treated and 152,052 operations were performed under a plan of divided expense. The commissioner's statement makes an appeal for the continuance of this work, as well as for sufficient funds adequately to continue other rural health work, aid in county health nursing, maintenance of milk standards and the increasing of milk consumption, and social hygiene work. It is shown that increased funds are needed for the State laboratory in order to enable it to handle the increasing amount of work being asked of it, which would be impossible without additional personnel.

Concrete evidence of achievement in public health work is shown in many ways, but especially in the improvement in the general healthfulness of a population and by the lowering of the death rates for preventable diseases. Doctor Williams presents some interesting charts which show the reduction in the death rates for several important communicable diseases, a large part of which reduction is unquestionably the direct result of public health work.

### **SMALLPOX IN LOS ANGELES, CALIF.**

Smallpox has been reported as unusually prevalent in Los Angeles, Calif., during the last few months. The type of the disease, which was mild during the fall, has become severe, and recent reports show a considerable number of deaths from the disease.

The commissioner of health of Los Angeles is endeavoring to interest employers of labor and others in a campaign for vaccination. With proper cooperation from the public, the epidemic will be short-lived.

The following table shows the cases of smallpox and deaths from the disease in Los Angeles during the last seven months:

*Reports of smallpox in Los Angeles, Calif., from July 1, 1925, to January 31, 1926*

	Cases	Deaths
July, 1925.....	93	1
August, 1925.....	41	2
September, 1925.....	26	2
October, 1925.....	38	5
November, 1925.....	33	3
December, 1925.....	75	10
January, 1926.....	199	26

### RABIES AND DOG BITES IN NEW YORK CITY, 1921 TO 1925

The following is taken from the Weekly Bulletin of the New York City Department of Health dated January 30, 1926:

Because of the increase in rabies in New Jersey and in Westchester County, active measures will be taken to bring about a rigid enforcement of the dog-muzzling ordinance. This has in the past been one of the most difficult problems with which the department has had to cope.

Dog owners do not appreciate the magnitude of this problem. Each owner, believing that his dog is harmless and does not bite, can not understand why his dog must be muzzled. The records of the department, however, tell a different story regarding the subject of unmuzzled and improperly muzzled dogs. The following table shows the number of dog bites in the last five years, 1921 to 1925, inclusive:

Year	Number of dog bites
1921.....	3, 049
1922.....	3, 455
1923.....	4, 538
1924.....	4, 699
1925.....	7, 030

Thus, in 1921 there were 3,049 dog bites, as compared with 7,030 in 1925, an increase of more than 100 per cent.

The number of rabid dogs has also increased. In 1920 there were 44 rabid dogs, as compared with 76 in 1925.

A study of the breed of dogs shows the poodle to be the most frequent offender. The cooperation of everyone is urged in this campaign. Proper muzzling of dogs in public places will control this situation.

### DEATHS DURING WEEK ENDED FEBRUARY 13, 1926

*Summary of information received by telegraph from industrial insurance companies for week ended February 13, 1926, and corresponding week of 1925. (From the Weekly Health Index, February 16, 1926, issued by the Bureau of the Census, Department of Commerce)*

	Week ended Feb. 13, 1926	Corresponding week, 1925
Policies in force.....	63, 364, 512	58, 621, 734
Number of death claims.....	10, 851	11, 708
Death claims per 1,000 policies in force, annual rate.....	8. 9	10. 4

Deaths from all causes in certain large cities of the United States during the week ended February 13, 1926, infant mortality, annual death rate, and comparison with corresponding week of 1925. (From the Weekly Health Index, February 16, 1926, issued by the Bureau of the Census, Department of Commerce)

City	Week ended Feb. 13, 1926		Annual death rate per 1,000 corresponding week, 1925	Deaths under 1 year		Infant mortality rate, week ended Feb. 13, 1926 <sup>2</sup>
	Total deaths	Death rate <sup>1</sup>		Week ended Feb. 13, 1926	Corresponding week, 1925	
Total (69 cities) .....	8,252	14.8	14.2	908	934	875
Akron.....	41			6	5	64
Albany.....	52	23.0	17.7	3	5	63
Atlanta.....	103			14	13	
White.....	49			4		
Colored.....	54	( <sup>3</sup> )				
Baltimore.....	377	24.7	17.5	41	37	120
White.....	277			20		103
Colored.....	100	( <sup>3</sup> )		12		195
Birmingham.....	69	17.5	13.3	5	6	
White.....	32			3		
Colored.....	37	( <sup>3</sup> )		2		
Boston.....	214	14.3	19.3	26	24	73
Bridgeport.....	42			8	2	136
Buffalo.....	152	14.7	14.8	14	15	58
Cambridge.....	35	15.3	14.8	4	3	66
Camden.....	32	13.0	16.2	6	7	101
Chicago.....	674	11.7	12.0	83	99	73
Cincinnati.....	151	19.2	16.7	16	11	100
Cleveland.....	217	12.1	10.3	32	20	83
Columbus.....	78	14.5	13.0	7	6	64
Dallas.....	60	16.2	18.9	5	11	
White.....	46			1		
Colored.....	14	( <sup>3</sup> )		4		
Dayton.....	30	9.0	12.7	5	5	79
Denver.....	105	19.5	17.6	10	10	
Des Moines.....	32	11.2	12.9	1	1	17
Detroit.....	326	13.6	11.7	55	56	89
Duluth.....	24	11.3	9.9	4	3	94
El Paso.....	49	24.3	19.9	8	9	
Erie.....	30			3	6	57
Fall River.....	38	15.4	13.3	2	8	29
Flint.....	19	7.6	5.2	3	2	50
Fort Worth.....	42	14.4	10.6	3	4	
White.....	31			2		
Colored.....	11	( <sup>3</sup> )		1		
Grand Rapids.....	35	11.9	11.5	5	7	72
Houston.....	71	22.4	17.1	9	3	
White.....	43			5		
Colored.....	28	( <sup>3</sup> )		4		
Indianapolis.....	107	15.5	14.7	10	6	73
White.....	91			10		84
Colored.....	16	( <sup>3</sup> )		0		0
Jacksonville, Fla.....	47	23.4	20.9	2	4	42
White.....	24			2		65
Colored.....	23	( <sup>3</sup> )		0		0
Jersey City.....	104	17.2	13.7	10	10	71
Kansas City, Kans.....	28	12.6	17.5	4	5	69
White.....	20			4		84
Colored.....	8	( <sup>3</sup> )		0		0
Kansas City, Mo.....	100	14.2	15.9	15	16	
Los Angeles.....	245			70	29	194
Louisville.....	76	13.1	14.2	9	10	78
White.....	56			8		80
Colored.....	20	( <sup>3</sup> )		1		63
Lowell.....	25	11.8	11.3	3	5	56
Lynn.....	29	14.7	12.1	2	3	50
Memphis.....	71	21.2	20.0	6	6	
White.....	42			3		
Colored.....	29	( <sup>3</sup> )		3		

<sup>1</sup> Annual rate per 1,000 population.

<sup>2</sup> Deaths under 1 year per 1,000 births—an annual rate based on deaths under 1 year for the week and estimated births for 1924. Cities left blank are not in the registration area for births.

<sup>3</sup> Data for 64 cities.

<sup>4</sup> Deaths for week ended Friday, Feb. 12, 1926.

<sup>5</sup> In the cities for which deaths are shown by color, the colored population in 1920 constituted the following percentage of the total population: Atlanta 31, Baltimore 15, Birmingham 39, Dallas 15, Fort Worth 14, Houston 25, Kansas City, Kans., 14, Louisville 17, Memphis 38, Nashville 30, New Orleans 28, Norfolk 38, Richmond 32, and Washington, D. C., 25.

*Deaths from all causes in certain large cities of the United States during the week ended February 13, 1926, infant mortality, annual death rate, and comparison with corresponding week of 1925. (From the Weekly Health Index, February 16, 1926, issued by the Bureau of the Census, Department of Commerce)*—Continued

City	Week ended Feb. 13, 1926		Annual death rate per 1,000 corresponding week, 1925	Deaths under 1 year		Infant mortality rate, week ended Feb. 13, 1926
	Total deaths	Death rate		Week ended Feb. 13, 1926	Corresponding week, 1925	
Milwaukee.....	118	12.3	11.7	11	26	51
Minneapolis.....	85	10.4	12.4	12	15	67
Nashville.....	37	14.2	14.2	6	3	-----
White.....	20			4	-----	-----
Colored.....	17	( <sup>5</sup> )		2	-----	-----
New Bedford.....	25	10.9	12.6	5	5	87
New Haven.....	52	15.2	14.6	7	6	96
New Orleans.....	290	36.5	26.0	35	18	-----
White.....	191			19	-----	-----
Colored.....	99	( <sup>5</sup> )		16	-----	-----
New York.....	1,599	14.2	14.7	171	184	69
Bronx Borough.....	181	10.8	10.2	18	13	60
Brooklyn Borough.....	541	12.8	13.8	63	66	64
Manhattan Borough.....	679	18.2	19.3	66	92	73
Queens Borough.....	137	10.0	10.0	19	11	86
Richmond Borough.....	61	23.0	17.3	5	2	88
Newark, N. J.....	119	13.7	12.1	12	18	57
Norfolk.....	31			1	12	19
White.....	18			1	-----	30
Colored.....	13	( <sup>5</sup> )		0	-----	0
Oakland.....	63	12.9	12.9	9	5	104
Oklahoma City.....	29			3	2	-----
Omaha.....	48	11.8	17.0	6	8	63
Paterson.....	34	12.5	15.8	5	5	87
Philadelphia.....	564	14.9	15.6	57	57	76
Pittsburgh.....	164	13.5	14.5	24	20	80
Portland, Oreg.....	86	15.9	9.4	3	3	31
Providence.....	73	14.2	12.3	12	10	100
Richmond.....	89	24.9	20.7	5	6	63
White.....	53			3	-----	59
Colored.....	36	( <sup>5</sup> )		2	-----	70
Rochester.....	69	11.4	11.2	6	5	48
St. Louis.....	226	14.3	12.4	20	13	-----
St. Paul.....	55	11.7	10.4	3	3	27
Salt Lake City.....	65	25.9	12.7	7	5	97
San Antonio.....	85	22.4	14.5	15	6	-----
San Diego.....	36	17.7	16.2	2	2	42
San Francisco.....	162	15.2	13.1	3	14	18
Schenectady.....	24	13.5	9.0	2	0	58
Seattle.....	80			2	2	19
Somerville.....	20	10.5	14.7	3	4	78
Spokane.....	33	15.8	12.9	3	6	70
Springfield, Mass.....	36	13.2	14.7	2	5	29
Syracuse.....	46	13.2	13.2	7	6	83
Tacoma.....	24	12.0	10.0	3	0	70
Toledo.....	82	14.9	11.8	9	11	87
Trenton.....	46	18.2	19.4	9	7	150
Utica.....	29	14.9	11.8	1	1	22
Washington, D. C.....	166	17.4	15.7	8	2	45
White.....	106			2	-----	17
Colored.....	60	( <sup>5</sup> )		6	-----	100
Waterbury.....	24			5	1	107
Wilmington, Del.....	27	11.5	18.4	3	1	70
Worcester.....	47	12.8	13.4	3	7	35
Yonkers.....	27	12.4	9.6	3	4	67
Youngstown.....	32	10.4	13.4	8	4	102

See footnotes 4 and 5 on p. 385.



# PREVALENCE OF DISEASE

*No health department, State or local, can effectively prevent or control disease without knowledge of when, where, and under what conditions cases are occurring*

## UNITED STATES

### CURRENT WEEKLY STATE REPORTS

These reports are preliminary and the figures are subject to change when later returns are received by the State health officers

#### Reports for Week Ended February 20, 1926

ALABAMA		ARKANSAS—continued	
	Cases		Cases
Cerebrospinal meningitis.....	2	Pellagra.....	1
Chicken pox.....	84	Poliomyelitis.....	1
Diphtheria.....	10	Scarlet fever.....	5
Influenza.....	848	Smallpox.....	2
Lethargic encephalitis.....	1	Trachoma.....	1
Malaria.....	5	Tuberculosis.....	4
Measles.....	57	Typhoid fever.....	3
Mumps.....	67	Whooping cough.....	44
Ophthalmia neonatorum.....	1		
Pellagra.....	3		
Pneumonia.....	234		
Scarlet fever.....	21		
Smallpox.....	25		
Tetanus.....	1		
Trachoma.....	1		
Tuberculosis.....	43		
Typhoid fever.....	10		
Typhus fever.....	1		
Whooping cough.....	24		
ARIZONA		CALIFORNIA	
Chicken pox.....	12	Cerebrospinal meningitis:	
Diphtheria.....	3	Los Angeles.....	2
Influenza.....	220	Oakland.....	1
Mumps.....	17	Sacramento.....	1
Pneumonia.....	2	San Diego.....	1
Scarlet fever.....	6	Sutter County.....	1
Trachoma.....	97	Chicken pox.....	456
Tuberculosis.....	4	Diphtheria.....	119
		Influenza.....	291
		Lethargic encephalitis—San Francisco.....	1
		Measles.....	90
		Mumps.....	299
		Poliomyelitis.....	
		Los Angeles County.....	1
		Salinas.....	1
		San Joaquin County.....	1
		Whittier.....	1
		Scarlet fever.....	137
		Smallpox:	
		Los Angeles.....	41
		Los Angeles County.....	20
		Oakland.....	28
		San Francisco.....	16
		Scattering.....	23
		Typhoid fever.....	9
		Whooping cough.....	50
ARKANSAS			
Chicken pox.....	19		
Diphtheria.....	1		
Influenza.....	214		
Malaria.....	19		
Measles.....	14		
Mumps.....	29		
Ophthalmia neonatorum.....	1		

COLORADO		GEORGIA	
	Cases		Cases
Chicken pox.....	100	Chicken pox.....	26
Diphtheria.....	17	Diphtheria.....	9
Influenza.....	16	Dysentery.....	3
Measles.....	19	Hookworm disease.....	3
Mumps.....	7	Influenza.....	1,275
Pneumonia.....	10	Malaria.....	14
Scarlet fever.....	25	Measles.....	80
Septic sore throat.....	1	Mumps.....	63
Tuberculosis.....	64	Pellagra.....	5
Typhoid fever.....	2	Pneumonia.....	191
Whooping cough.....	82	Scarlet fever.....	10
		Septic sore throat.....	5
		Smallpox.....	10
		Tuberculosis.....	17
		Typhoid fever.....	8
		Whooping cough.....	20
CONNECTICUT		IDAHO	
Anthrax.....	1	Cerebrospinal meningitis:	
Chicken pox.....	116	American Falls.....	1
Diphtheria.....	56	Orofino.....	1
German measles.....	9	Chicken pox.....	17
Influenza.....	13	Diphtheria.....	2
Lethargic encephalitis.....	2	Influenza.....	5
Measles.....	787	Measles.....	11
Mumps.....	15	Mumps.....	17
Paratyphoid fever.....	2	Pneumonia (broncho).....	8
Pneumonia (broncho).....	38	Scarlet fever.....	15
Pneumonia (lobar).....	57	Septic sore throat.....	1
Scarlet fever.....	91	Tuberculosis.....	2
Septic sore throat.....	2	Typhoid fever.....	3
Tuberculosis (all forms).....	35	Whooping cough.....	11
Typhoid fever.....	3		
Whooping cough.....	72		
DELAWARE		ILLINOIS	
Chicken pox.....	6	Cerebrospinal meningitis:	
Diphtheria.....	2	Cook County.....	1
Measles.....	206	Lee County.....	1
Scarlet fever.....	2	Whiteside County.....	1
Tuberculosis.....	7	Diphtheria.....	70
Whooping cough.....	5	Influenza.....	41
DISTRICT OF COLUMBIA		Lethargic encephalitis:	
Chicken pox.....	21	Cook County.....	1
Diphtheria.....	25	Knox County.....	1
Influenza.....	30	Lake County.....	1
Measles.....	31	Measles.....	735
Pneumonia.....	152	Pneumonia.....	390
Scarlet fever.....	21	Polio-my-elitis:	
Tuberculosis.....	16	Cook County.....	1
Whooping cough.....	8	Rock Island County.....	1
FLORIDA		Scarlet fever.....	410
Chicken pox.....	31	Smallpox.....	25
Diphtheria.....	10	Tuberculosis.....	290
Influenza.....	38	Typhoid fever.....	15
Malaria.....	4	Whooping cough.....	175
Measles.....	8		
Mumps.....	26		
Pneumonia.....	15		
Scarlet fever.....	10		
Smallpox.....	133		
Tetanus.....	2		
Tuberculosis.....	6		
Typhoid fever.....	4		
Whooping cough.....	9		
		INDIANA	
		Chicken pox.....	81
		Diphtheria.....	21
		Influenza.....	79
		Measles.....	1,082
		Ophthalmia neonatorum.....	1
		Pneumonia.....	17
		Scarlet fever.....	246
		Smallpox.....	69
		Tuberculosis.....	31
		Typhoid fever.....	2
		Whooping cough.....	84

IOWA		MARYLAND—continued	
	Cases		Cases
Cerebrospinal meningitis.....	2	Tuberculosis.....	82
Chicken pox.....	46	Typhoid fever.....	2
Diphtheria.....	20	Whooping cough.....	45
German measles.....	42		
Measles.....	110	MASSACHUSETTS	
Mumps.....	57	Anthrax.....	1
Pneumonia.....	18	Chicken pox.....	194
Scarlet fever.....	57	Conjunctivitis (suppurative).....	12
Smallpox.....	49	Diphtheria.....	66
Tuberculosis.....	16	German measles.....	103
Whooping cough.....	36	Hookworm disease.....	1
		Lethargic encephalitis.....	6
KANSAS		Malaria.....	11
Cerebrospinal meningitis—Kansas City.....	1	Measles.....	1,978
Chicken pox.....	119	Mumps.....	112
Diphtheria.....	16	Ophthalmia neonatorum.....	32
German measles.....	1	Pneumonia (lobar).....	133
Influenza.....	26	Scarlet fever.....	272
Measles.....	174	Septic sore throat.....	3
Mumps.....	24	Trichinosis.....	1
Pneumonia.....	74	Tuberculosis (pulmonary).....	101
Scarlet fever.....	79	Tuberculosis (other forms).....	34
Smallpox.....	21	Typhoid fever.....	5
Tuberculosis.....	35	Whooping cough.....	513
Whooping cough.....	82		
		MICHIGAN	
LOUISIANA		Diphtheria.....	91
Cerebrospinal meningitis.....	3	Measles.....	2,386
Diphtheria.....	16	Pneumonia.....	201
Influenza.....	152	Scarlet fever.....	421
Pneumonia.....	65	Smallpox.....	4
Scarlet fever.....	8	Tuberculosis.....	39
Smallpox.....	88	Typhoid fever.....	6
Tuberculosis.....	33	Whooping cough.....	313
Typhoid fever.....	16		
		MINNESOTA	
MAINE		Chicken pox.....	110
Chicken pox.....	39	Diphtheria.....	40
Diphtheria.....	1	Influenza.....	4
German measles.....	12	Measles.....	157
Influenza.....	14	Pneumonia.....	3
Lethargic encephalitis.....	1	Scarlet fever.....	282
Measles.....	82	Smallpox.....	10
Mumps.....	34	Tuberculosis.....	53
Paratyphoid fever.....	1	Typhoid fever.....	7
Pneumonia.....	21	Whooping cough.....	28
Scarlet fever.....	33		
Tuberculosis.....	7	MISSISSIPPI	
Typhoid fever.....	3	Diphtheria.....	6
Vincent's angina.....	1	Influenza.....	1,916
Whooping cough.....	55	Scarlet fever.....	11
		Smallpox.....	28
MARYLAND <sup>1</sup>		Typhoid fever.....	1
Cerebrospinal meningitis.....	2		
Chicken pox.....	131	MISSOURI	
Conjunctivitis.....	2	Cerebrospinal meningitis.....	2
Diphtheria.....	22	Chicken pox.....	82
German measles.....	4	Diphtheria.....	106
Influenza.....	576	Influenza.....	6
Measles.....	1,657	Measles.....	241
Mumps.....	198	Mumps.....	6
Paratyphoid fever.....	1	Ophthalmia neonatorum.....	1
Pneumonia (broncho).....	145	Pneumonia.....	8
Pneumonia (lobar).....	114	Rabies (in animals).....	3
Scarlet fever.....	51	Scarlet fever.....	288
Septic sore throat.....	4	Smallpox.....	13

<sup>1</sup> Week ended Friday.

## MISSOURI—continued

	Cases
Trachoma.....	1
Tuberculosis.....	40
Typhoid fever.....	1
Whooping cough.....	63

## MONTANA

Chicken pox.....	27
Diphtheria.....	2
German measles.....	14
Influenza.....	52
Measles.....	23
Mumps.....	42
Scarlet fever.....	37
Smallpox.....	1
Trachoma.....	3
Tuberculosis.....	2
Typhoid fever.....	1
Whooping cough.....	15

## NEBRASKA

Chicken pox.....	28
Diphtheria.....	6
German measles.....	2
Lethargic encephalitis.....	1
Measles.....	23
Mumps.....	9
Pneumonia.....	2
Scarlet fever.....	60
Smallpox.....	19
Tuberculosis.....	9
Whooping cough.....	30

## NEW JERSEY

Anthrax.....	1
Cerebrospinal meningitis.....	5
Chicken pox.....	383
Diphtheria.....	80
Influenza.....	16
Malaria.....	1
Measles.....	2,430
Pneumonia.....	277
Scarlet fever.....	214
Typhoid fever.....	7
Whooping cough.....	88

## NEW MEXICO

Chicken pox.....	22
Conjunctivitis.....	1
Diphtheria.....	3
German measles.....	1
Influenza.....	86
Measles.....	1
Mumps.....	19
Pneumonia.....	38
Rabies (in animals).....	1
Scarlet fever.....	12
Smallpox.....	2
Tuberculosis.....	50
Typhoid fever.....	4
Whooping cough.....	19

\* 1 Deaths.

NEW YORK  
(Exclusive of New York City)

	Cases
Chicken pox.....	372
Diphtheria.....	66
German measles.....	330
Influenza.....	105
Lethargic encephalitis.....	2
Measles.....	1,378
Mumps.....	178
Pneumonia.....	370
Poliomyelitis.....	3
Scarlet fever.....	274
Septic sore throat.....	4
Typhoid fever.....	15
Vincent's angina.....	10
Whooping cough.....	404

## NORTH CAROLINA

Cerebrospinal meningitis.....	1
Chicken pox.....	207
Diphtheria.....	29
German measles.....	108
Measles.....	204
Poliomyelitis.....	1
Scarlet fever.....	28
Septic sore throat.....	2
Smallpox.....	29
Typhoid fever.....	1
Whooping cough.....	158

## OKLAHOMA

(Exclusive of Tulsa and Oklahoma City)

Cerebrospinal meningitis—Muskogee.....	1
Chicken pox.....	35
Diphtheria.....	15
Influenza.....	846
Malaria.....	10
Measles.....	11
Mumps.....	13
Pellagra.....	1
Pneumonia.....	219
Poliomyelitis—Pottawatomie County.....	1
Scarlet fever.....	23
Smallpox.....	1
Typhoid fever.....	3
Whooping cough.....	45

## OREGON

Cerebrospinal meningitis.....	3
Chicken pox.....	41
Diphtheria.....	26
Influenza.....	281
Measles.....	24
Mumps.....	52
Pneumonia.....	13
Poliomyelitis.....	1
Scarlet fever.....	31
Smallpox.....	48
Tuberculosis.....	13
Typhoid fever.....	6
Whooping cough.....	64

## PENNSYLVANIA

	Cases
Anthrax—Philadelphia.....	1
Chicken pox.....	688
Diphtheria.....	174
German measles.....	42
Impetigo contagiosa.....	12
Lethargic encephalitis—Philadelphia.....	4
Measles.....	3,043
Mumps.....	133
Ophthalmia neonatorum.....	1
Pneumonia.....	84
Scabies.....	1
Scarlet fever.....	552
Trachoma—Philadelphia.....	1
Tuberculosis.....	81
Typhoid fever.....	32
Vincent's angina.....	1
Whooping cough.....	318

## RHODE ISLAND

Cerebrospinal meningitis—Coventry.....	1
Chicken pox.....	5
Diphtheria.....	5
German measles.....	3
Influenza.....	2
Measles.....	309
Pneumonia.....	1
Scarlet fever.....	10
Whooping cough.....	2

## SOUTH DAKOTA

Chicken pox.....	18
Diphtheria.....	6
Measles.....	17
Mumps.....	89
Pneumonia.....	7
Scarlet fever.....	124
Smallpox.....	1
Typhoid fever.....	1
Whooping cough.....	1

## TENNESSEE

Chicken pox.....	100
Diphtheria.....	14
Influenza.....	221
Malaria.....	2
Measles.....	338
Mumps.....	21
Pellagra.....	3
Pneumonia.....	158
Scarlet fever.....	43
Smallpox:	
Memphis.....	15
Scattering.....	7
Tetanus.....	1
Tuberculosis.....	49
Typhoid fever.....	1
Whooping cough.....	20

## TEXAS

Anthrax.....	4
Cerebrospinal meningitis.....	2
Chicken pox.....	189
Diphtheria.....	66
Influenza.....	1,789
Measles.....	10
Mumps.....	127

## TEXAS—Continued

	Cases
Ophthalmia neonatorum.....	1
Paratyphoid fever.....	1
Pellagra.....	1
Pneumonia.....	237
Scarlet fever.....	54
Smallpox.....	127
Tetanus.....	1
Tuberculosis.....	64
Typhoid fever.....	24
Whooping cough.....	83

## UTAH

Cerebrospinal meningitis—Salt Lake City.....	2
Chicken pox.....	44
Diphtheria.....	11
Influenza.....	31
Measles.....	3
Mumps.....	26
Pneumonia.....	9
Scarlet fever.....	7
Smallpox.....	7
Whooping cough.....	31

## VERMONT

Chicken pox.....	20
Diphtheria.....	1
Measles.....	6
Mumps.....	12
Scarlet fever.....	20
Whooping cough.....	22

## WASHINGTON

Cerebrospinal meningitis:	
Seattle.....	4
Spokane.....	2
Spokane County.....	1
Chicken pox.....	81
Diphtheria.....	21
German measles.....	37
Measles.....	26
Mumps.....	165
Scarlet fever.....	97
Smallpox:	
Everett.....	17
Seattle.....	11
Tacoma.....	20
Scattering.....	44
Tuberculosis.....	13
Typhoid fever.....	3
Whooping cough.....	50

## WEST VIRGINIA

Diphtheria.....	3
Scarlet fever.....	4
Typhoid fever.....	6

## WISCONSIN

Milwaukee:	
Cerebrospinal meningitis.....	2
Chicken pox.....	86
Diphtheria.....	18
Measles.....	49
Mumps.....	39
Pneumonia.....	18
Scarlet fever.....	27
Tuberculosis.....	18
Typhoid fever.....	1
Whooping cough.....	46

WISCONSIN—continued		WYOMING	
Scattering:	Cases		Cases
Cerebrospinal meningitis.....	2	Chicken pox.....	5
Chicken pox.....	105	Diphtheria.....	2
Diphtheria.....	30	German measles.....	5
German measles.....	12	Influenza.....	8
Influenza.....	37	Measles.....	1
Measles.....	313	Mumps.....	4
Mumps.....	157	Ophthalmia neonatorum.....	1
Pneumonia.....	26	Pneumonia.....	1
Polio-myelitis.....	1	Scarlet fever.....	17
Scarlet fever.....	140	Tuberculosis.....	2
Smallpox.....	9	Whooping cough.....	7
Tuberculosis.....	27		
Typhoid fever.....	2		
Whooping cough.....	120		

## Report for week ended February 13, 1926

NORTH DAKOTA		NORTH DAKOTA—continued	
	Cases		Cases
Chicken pox.....	20	Pneumonia.....	15
Diphtheria.....	2	Scarlet fever.....	150
German measles.....	42	Smallpox.....	13
Influenza.....	8	Tuberculosis.....	3
Measles.....	34	Typhoid fever.....	1
Mumps.....	70	Whooping cough.....	14

## SUMMARY OF MONTHLY REPORTS FROM STATES

The following summary of monthly State reports is published weekly and covers only those States from which reports are received during the current week:

State	Cerebrospinal meningitis	Diphtheria	Influenza	Malaria	Measles	Pellagra	Polio-myelitis	Scarlet fever	Smallpox	Typhoid fever
<i>August, 1925</i>										
North Carolina.....	1	276			17		28	83	39	300
<i>January, 1926</i>										
Delaware.....	0	24	13		180	0	0	34	0	1
District of Columbia.....	0	132	19	0	99	0	0	114	0	1
Louisiana.....	0	106	308	6	4	10	1	46	181	78
New Jersey.....	5	441	124	0	5,217		3	927	2	38
North Dakota.....	2	23	18		60		6	383	27	8
Tennessee.....	3	70	615	19	838	22	2	151	49	26
Vermont.....	0	19	0	0	43		1	86	0	3
West Virginia.....	4	121	161		461			242	31	39
Wisconsin.....	4	218	169	0	630	0	2	768	70	18

## SMALLPOX ON VESSEL

The Coast Guard cutter *Saukee* was reported at Key West, Fla., February 23, 1926, with a member of the crew ill with smallpox. The entire crew has been vaccinated.

## PNEUMONIA (ALL FORMS) AND INFLUENZA

Deaths reported in large cities of the United States during three-week periods ended  
February 14, 1925, and February 13, 1926

## PNEUMONIA (ALL FORMS)

	Week ended—					
	Jan. 31, 1925	Jan. 30, 1926	Feb. 7, 1925	Feb. 6, 1926	Feb. 14, 1925	Feb. 13, 1926
Atlanta	13	12	13	16	19	19
Baltimore	48	69	60	75	50	83
Birmingham	15	13	15	12	17	8
Boston	34	29	48	29	48	29
Bridgeport	10	1	3	5	4	8
Buffalo	20	15	9	16	22	23
Cambridge, Mass.	5	4	10	4	3	4
Camden	5	11	7	9	6	5
Canton	5	3	1		9	1
Chicago	77	62	78	66	84	97
Cincinnati	14	10	18	19	20	10
Cleveland	25	20	38	31	23	
Columbus	5	9	6	5	10	6
Dallas	11	15	11	13	23	9
Denver	23	6	12	14	12	16
Detroit	44	49	47	39	49	42
Duluth	2		5	1	2	5
Elizabeth	2	9	5	4	6	
El Paso	6	3	10	5	4	2
Eric	2	7	4	5	7	3
Fall River	8	2	5	3	7	1
Flint	1	2	2	4	1	4
Fort Worth	17	6	6	10	5	6
Grand Rapids	2	2	4	2	3	7
Hartford	1	5	7	10	11	7
Houston	10	16		9	11	19
Indianapolis	11	13	17	24	21	10
Kansas City, Mo.	18	9	23	13	28	9
Los Angeles	42	29	35	40	38	24
Louisville	10	6	13	14	17	12
Lowell	3	3	3	8	4	4
Lynn	2	2	5	1	2	4
Memphis	20	5	14	5	15	15
Minneapolis	10	7	7	11	2	3
Nashville	2	11	7	9	1	4
New Bedford	4	5	4	1	7	4
New Haven	14	6	7	5	2	4
New Orleans		26	15	40	28	58
New York	262	231	272	254	271	256
Newark	12	19	14	16	10	15
Norfolk	2	7	6	5	6	3
Oakland	5	7	6	2	6	4
Oklahoma City	5	4	7	1	3	
Omaha	12	7	13	9	15	5
Philadelphia	96	108	110	95	94	72
Pittsburgh	44	34	75	22	38	
Portland, Oreg.		15	6	12		14
Providence	7	7	9	9	9	2
Reading	3	3	3	3		4
Richmond	4	8	12	10	8	32
Rochester	6	6	3	4	5	5
St. Paul	8	14	8	13	5	6
Salt Lake City	3	5	1	5	6	12
San Antonio	14	20	15	13	13	20
San Diego	4	2	8	3	4	6
San Francisco	6	12	8	8	6	8
Schenectady	1	3		4		3
Somerville	6	1	5	1	6	3
Springfield, Mass.	3	1	3	3		
Syracuse	2	5	4	4	5	12
Tacoma	4	4	3	1	3	4
Toledo	4	6	10	5	6	4
Trenton	5	5	3	5	5	5
Washington	22	20	22	36	14	31
Waterbury	5	4	5	4	9	5
Wilmington, Del.	1	6		7		4
Worcester	8	6		12	10	5
Youngstown	7	3	9	8	9	3

*Deaths reported in large cities of the United States during three-week periods ended February 14, 1925, and February 13, 1926—Continued*

## INFLUENZA

	Week ended—					
	Jan 31, 1925	Jan. 30, 1926	Feb. 7, 1925	Feb. 6, 1926	Feb. 14, 1925	Feb. 13, 1926
Atlanta.....		1	7	4	5	2
Baltimore.....	12	8	3	30	7	20
Birmingham.....	4	6	8	7	2	2
Boston.....	2	1	7	2	3	3
Bridgeport.....	3		1	1		3
Buffalo.....			1	1	1	
Cambridge, Mass.....		1			1	
Camden.....		2				1
Canton.....				1	1	
Chicago.....	3	1	4	7	3	4
Cincinnati.....	3	6	4	1	3	2
Cleveland.....		1	2	4	6	
Columbus.....	2	4	2	1	3	1
Dallas.....	4	1	5	4	3	9
Denver.....	1	1	4	11	3	13
Detroit.....	4		2		5	1
Duluth.....						
Elizabeth.....		1				
El Paso.....	6	14	9		17	15
Erie.....	1	2		2		4
Fall River.....	2	2	1		1	
Ft. Hnt.....						
Fort Worth.....	2				1	
Grand Rapids.....		2			1	
Hartford.....		1	4		2	
Houston.....		1	1	1	6	2
Indianapolis.....	2	2	2	3	2	3
Kansas City, Mo.....	7	3	8	3	5	2
Los Angeles.....	3	3	6	9	1	7
Louisville.....	1	1		2		1
Lowell.....						
Lynn.....						
Memphis.....	4	3		2	3	6
Minneapolis.....		1	1			
Nashville.....	3	3	2	8	2	2
New Bedford.....						
New Haven.....			2	2		1
New Orleans.....	8	26	8	26	11	45
New York.....	16	18	26	23	30	20
Newark.....	2		1			
Norfolk.....						
Oakland.....			2	5	1	2
Oklahoma City.....	2				2	3
Omaha.....						
Philadelphia.....	5	10	14	13	9	8
Pittsburgh.....	7	4	6	3	3	
Portland, Oreg.....						
Providence.....	1	2			2	
Reading.....					1	
Richmond.....	2	2	3	1	3	5
Rochester.....				1		1
St. Paul.....		2		5		
Salt Lake City.....		7			1	
San Antonio.....	4	2	4	4	3	7
San Diego.....	1	1	1	1		2
San Francisco.....	2	13	4	8		2
Schenectady.....			4		1	
Somerville.....						
Springfield, Mass.....	3		4		1	1
Syracuse.....						
Tacoma.....						
Toledo.....		3				
Trenton.....	1	3				
Washington.....	1	2	5	1	2	3
Waterbury.....			1			1
Wilmington, Del.....						
Worcester.....				1		
Youngstown.....	1	2	1	1	1	1



### PLAGUE-ERADICATIVE MEASURES IN THE UNITED STATES

The following items were taken from the reports of plague-eradication measures from the cities named:

#### *Los Angeles, Calif.*

Week ended Feb. 6, 1926:

Number of rats trapped.....	2, 856
Number of rats found to be plague infected.....	0
Number of squirrels examined.....	584
Number of squirrels found to be plague infected.....	0
Number of mice trapped.....	3, 249
Number of mice found to be plague infected.....	0

Date of discovery of last plague-infected rodent, Nov. 6, 1925.

Date of last human case, Jan. 15, 1925.

#### *Oakland, Calif.*

(Including other East Bay communities)

Week ended Feb. 6, 1926:

Number of rats trapped.....	459
Number of rats found to be plague infected.....	0

Totals:

Number of rats trapped Jan. 1, 1925, to Feb. 6, 1926.....	81, 586
Number of rats found to be plague infected.....	21
Number of squirrels examined May 1 to Aug. 1, 1925.....	7, 277
Number of squirrels found to be plague infected.....	0
Number of mice trapped Jan. 1, 1925, to Feb. 6, 1926.....	32, 108

Date of discovery of last plague-infected rat, Mar. 4, 1925.

Date of last human case, Sept. 10, 1919.

### GENERAL CURRENT SUMMARY AND WEEKLY REPORTS FROM CITIES

*Diphtheria*.—For the week ended February 6, 1926, 37 States reported 1,312 cases of diphtheria. For the week ended February 7, 1925, the same States reported 1,740 cases of this disease. One hundred and one cities, situated in all parts of the country and having an aggregate population of more than 30,300,000, reported 776 cases of diphtheria for the week ended February 6, 1926. Last year for the corresponding week they reported 965 cases. The estimated expectancy for the secities was 1,119 cases. The estimated expectancy is based on the experience of the last nine years, excluding epidemics.

*Measles*.—Thirty-four States reported 12,770 cases of measles for the week ended February 6, 1926, and 2,706 cases of this disease for the week ended February 7, 1925. One hundred and one cities reported 8,594 cases of measles for the week this year and 1,384 cases last year.

*Poliomyelitis*.—The health officers of 38 States reported 23 cases of poliomyelitis for the week February 6, 1926. The same States reported 18 cases for the week ended February 7, 1925.

*Scarlet fever.*—Scarlet fever was reported for the week as follows: Thirty-seven States—this year, 4,262 cases; last year, 4,482 cases. One hundred and one cities—this year, 1,735 cases; last year, 2,271 cases; estimated expectancy, 1,283 cases.

*Smallpox.*—For the week ended February 6, 1926, 37 States reported 1,059 cases of smallpox. Last year for the corresponding week they reported 1,312 cases. One hundred and one cities reported smallpox for the week as follows: 1926, 276 cases; 1925, 420 cases; estimated expectancy, 121 cases. Nine deaths from smallpox were reported by these cities for the week this year—8 at Los Angeles, Calif., and 1 at San Francisco, Calif.

*Typhoid fever.*—One hundred and seventy-one cases of typhoid fever were reported for the week ended February 6, 1926, by 36 States. For the corresponding week of 1925 the same States reported 276 cases of this disease. One hundred and one cities reported 43 cases of typhoid fever for the week this year and 73 cases for the corresponding week last year. The estimated expectancy for these cities was 41 cases.

*Influenza and pneumonia.*—Deaths from influenza and pneumonia were reported for the week by 94 cities, with a population of more than 29,600,000, as follows: 1926, 1,365 deaths; 1925, 1,356.

*City reports for week ended February 6, 1926*

The "estimated expectancy" given for diphtheria, poliomyelitis, scarlet fever, smallpox, and typhoid fever is the result of an attempt to ascertain from previous occurrence how many cases of the disease under consideration may be expected to occur during a certain week in the absence of epidemics. It is based on reports to the Public Health Service during the past nine years. It is in most instances the median number of cases reported in the corresponding week of the preceding years. When the reports include severe epidemics or when for other reasons the median is unsatisfactory, the epidemic periods are excluded and the estimated expectancy is the mean number of cases reported for the week during nonepidemic years.

If reports have not been received for the full nine years, data are used for as many years as possible, but no year earlier than 1917 is included. In obtaining the estimated expectancy, the figures are smoothed when necessary to avoid abrupt deviations from the usual trend. For some of the diseases given in the table the available data were not sufficient to make it practicable to compute the estimated expectancy.

Division, State, and city	Population July 1, 1925, estimated	Chicken pox, cases reported	Diphtheria		Influenza		Measles, cases reported *	Mumps, cases reported	Pneumonia, deaths reported
			Cases, estimated expectancy	Cases reported	Cases reported	Deaths reported			
NEW ENGLAND									
Maine:									
Portland .....	75,333	1	2	0	1	0	9	4	3
New Hampshire:									
Concord .....	22,546	0	0	0	0	0	6	0	1
Vermont:									
Barre .....	10,008	0	0	0	0	0	0	0	0
Burlington .....	24,089	1	1	0	0	0	0	0	1
Massachusetts:									
Boston .....	779,620	67	67	11	0	2	172	23	29
Fall River .....	128,993	4	6	4	1	0	66	0	3
Springfield .....	142,065	1	4	1	2	0	72	1	3
Worcester .....	190,757	2	5	14	0	0	79	0	12
Rhode Island:									
Pawtucket .....	69,760	4	1	0	0	0	45	0	5
Providence .....	267,918	0	12	3	0	0	416	0	0

## City reports for week ended February 6, 1926—Continued

Division, State, and city	Population July 1, 1925, estimated	Chicken pox, cases re-ported	Diphtheria		Influenza		Meas-les, cases re-ported	Mumps, cases re-ported	Pneu-monia, deaths re-ported
			Cases, estimated expectancy	Cases re-ported	Cases re-ported	Deaths re-ported			
NEW ENGLAND—contd.									
Connecticut									
Bridgeport	(1)	2	9	1	1	1	44	1	5
Hartford	160,197	12	8	6	0	0	73	1	10
New Haven	178,927	10	4	1	1	2	37	1	5
MIDDLE ATLANTIC									
New York:									
Buffalo	538,016	33	18	11	0	1	11	1	16
New York	5,873,356	168	223	128	58	23	1,759	38	254
Rochester	316,786	28	9	16	0	1	89	1	4
Syracuse	182,003	30	8	3	0	0	12	41	4
New Jersey:									
Camden	123,642	8	4	7	1	0	17	0	9
Newark	452,513	66	21	14	3	0	336	5	16
Trenton	132,020	5	6	0	3	0	2	1	5
Pennsylvania:									
Philadelphia	1,979,364	156	81	58	-----	13	457	10	95
Pittsburgh	631,563	42	22	20	1	3	23	3	22
Reading	112,707	8	4	2	0	0	1	0	3
EAST NORTH CENTRAL									
Ohio:									
Cincinnati	409,335	14	10	4	0	1	4	2	19
Cleveland	936,485	35	34	39	1	4	1,271	0	31
Columbus	279,836	16	4	1	0	1	38	0	5
Toledo	257,380	35	7	4	0	0	48	0	5
Indiana:									
Fort Wayne	97,346	9	4	2	0	0	1	0	4
Indianapolis	358,819	19	12	4	0	3	334	2	24
South Bend	80,091	10	1	1	0	0	0	0	4
Terre Haute	71,071	2	1	0	0	0	1	0	1
Illinois:									
Chicago	2,995,239	112	114	54	10	7	108	23	66
Peoria	81,564	6	1	0	0	0	5	16	4
Springfield	63,923	6	2	2	0	0	2	5	2
Michigan:									
Detroit	1,243,824	72	63	41	2	0	1,312	3	39
Flint	130,316	16	7	1	0	0	16	3	4
Grand Rapids	153,698	4	4	2	0	0	9	2	2
Wisconsin:									
Madison	46,385	5	1	0	0	0	39	2	0
Milwaukee	509,192	59	19	23	2	1	23	24	9
Racine	67,707	9	2	1	1	0	1	0	3
Superior	39,671	0	0	0	0	0	0	0	0
WEST NORTH CENTRAL									
Minnesota:									
Duluth	119,502	8	2	2	0	0	2	0	1
Minneapolis	425,435	81	21	23	0	0	39	1	11
St. Paul	246,001	31	14	4	0	5	6	5	13
Iowa:									
Davenport	(1)	2	1	0	0	-----	0	0	-----
Des Moines	(1)	0	3	4	0	-----	2	0	-----
Sioux City	(1)	6	1	2	0	-----	1	0	-----
Waterloo	36,771	5	0	4	0	-----	2	2	-----
Missouri:									
Kansas City	367,481	41	10	2	3	3	88	8	13
St. Joseph	73,242	4	3	1	0	0	0	0	5
St. Louis	821,543	34	48	68	1	0	17	5	-----
North Dakota:									
Fargo	26,403	0	0	0	0	0	19	32	0
Grand Forks	14,511	0	0	0	0	-----	7	0	-----
South Dakota:									
Aberdeen	15,036	0	0	0	0	0	0	0	0
Sioux Falls	30,127	-----	1	-----	-----	-----	-----	-----	-----
Nebraska:									
Lincoln	60,941	2	2	0	0	0	0	0	0
Omaha	211,768	21	5	2	0	0	13	0	9
Kansas:									
Topeka	55,411	16	2	2	0	1	1	1	2
Wichita	88,367	6	4	0	0	0	8	0	5

1 No estimate made.

## City reports for week ended February 6, 1926—Continued

Division, State, and city	Population July 1, 1925, estimated	Chicken pox, cases reported	Diphtheria		Influenza		Measles, cases reported	Mumps, cases reported	Pneumonia, deaths reported
			Cases, estimated expectancy	Cases reported	Cases reported	Deaths reported			
SOUTH ATLANTIC									
Delaware:									
Wilmington.....	122, 040	9	2	4	0	0	61	0	7
Maryland:									
Baltimore.....	796, 296	75	31	17	948	30	1, 198	155	75
Cumberland.....	33, 741	0	0	0	0	0	5	0	4
Frederick.....	12, 035	0	1	0	0	0	7	2	0
District of Columbia:									
Washington.....	497, 906	41	17	30	10	1	24	0	36
Virginia:									
Lynchburg.....	30, 395	24	2	3	0	0	1	1	2
Norfolk.....	( <sup>1</sup> )	12	2	0	0	0	0	2	5
Richmond.....	186, 403	7	4	4	0	0	0	11	10
Roanoke.....	58, 208	1	2	1	0	0	5	4	4
West Virginia:									
Charleston.....	49, 019	1	2	0	0	0	0	0	1
Huntington.....	63, 485	0	0	0	0	1	6	0	1
Wheeling.....	56, 208	4	1	0	0	0	2	0	1
North Carolina:									
Raleigh.....	30, 371	12	0	1	0	0	1	0	2
Wilmington.....	37, 061	11	1	0	0	0	0	0	0
Winston-Salem.....	69, 031	8	0	1	0	0	54	0	3
South Carolina:									
Charleston.....	73, 125	0	1	2	0	1	0	0	0
Columbia.....	41, 225	5	0	1	0	0	0	1	0
Greenville.....	27, 311	4	0	0	0	0	1	0	1
Georgia:									
Atlanta.....	( <sup>1</sup> )	6	2	6	329	4	12	1	16
Brunswick.....	16, 809	10	0	0	0	0	0	0	0
Savannah.....	93, 134	6	1	1	50	0	2	2	13
Florida:									
St. Petersburg.....	26, 847		0		0	0			4
Tampa.....	94, 743	2	0	0	0	0	0	2	3
EAST SOUTH CENTRAL									
Kentucky:									
Covington.....	58, 309	9	1	0	0	0	0	0	5
Louisville.....	305, 935	4	8	2	2	2	13	0	14
Tennessee:									
Memphis.....	174, 533	25	4	2	0	2	1	3	5
Nashville.....	136, 220	6	0	1	0	8	120	0	9
Alabama:									
Birmingham.....	205, 670	8	3	1	21	7	3	3	12
Mobile.....	65, 955	1	0	0	0	1	0	0	3
Montgomery.....	46, 481	0	0	2	7	0	0	7	0
WEST SOUTH CENTRAL									
Arkansas:									
Fort Smith.....	31, 643	2	0	1	0		0	0	
Little Rock.....	74, 216	0	1	3	0	2	0	0	4
Louisiana:									
New Orleans.....	414, 493	0	13	9	112	26	1	0	40
Shreveport.....	57, 857	8	0	2	0	1	2	1	0
Oklahoma:									
Oklahoma City.....	( <sup>1</sup> )	0	1	0	8	0	0	0	1
Texas:									
Dallas.....	194, 450	22	6	5	11	4	5	0	13
Galveston.....	48, 375	1	1	1	0	0	0	0	3
Houston.....	164, 964	2	4	10	0	1	0	0	9
San Antonio.....	195, 069	1	3	1	0	4	0	0	13
MOUNTAIN									
Montana:									
Billings.....	17, 971	5	0	0	0	0	0	2	0
Great Falls.....	29, 883	20	2	0	0	1	0	17	0
Helena.....	12, 037	0	0	1	0	0	0	0	2
Missoula.....	12, 668	2	0	1	0	0	0	0	0
Idaho:									
Boise.....	23, 042	2	1	0	0	0	1	0	0

<sup>1</sup> No estimate made.

## City reports for week ended February 6, 1926—Continued

Division, State, and city	Population July 1, 1925, estimated	Chicken pox, cases re-reported	Diphtheria		Influenza		Measles, cases re-reported	Mumps, cases re-reported	Pneumonia, deaths re-reported
			Cases, estimated expectancy	Cases re-reported	Cases re-reported	Deaths re-reported			
MOUNTAIN—continued									
Colorado:									
Denver.....	280,311	36	11	7	0	11	8	1	14
Pueblo.....	43,787	7	3	1	0	0	0	0	3
New Mexico:									
Albuquerque.....	21,000	5	0	0	100	5	0	4	4
Utah:									
Salt Lake City.....	130,948	39	3	4	0	0	1	30	5
Nevada:									
Reno.....	12,665	0	0	0	0	0	0	0	1
PACIFIC									
Washington:									
Seattle.....	(1)	36	7	3	0	-----	3	100	-----
Spokane.....	108,897	12	5	0	0	-----	0	0	-----
Tacoma.....	104,455	0	2	4	0	0	1	1	1
Oregon:									
Portland.....	282,383	10	8	7	3	0	2	8	12
California:									
Los Angeles.....	(1)	77	42	55	158	9	9	10	40
Sacramento.....	72,260	2	2	0	1	2	0	0	3
San Francisco.....	557,530	50	27	8	15	8	26	12	8

Division, State, and city	Scarlet fever		Smallpox			Tuberculosis, deaths re-reported	Typhoid fever			Whooping cough, cases re-reported	Deaths, all causes
	Cases, estimated expectancy	Cases re-reported	Cases, estimated expectancy	Cases re-reported	Deaths re-reported		Cases, estimated expectancy	Cases re-reported	Deaths re-reported		
NEW ENGLAND											
Maine:											
Portland.....	3	5	0	0	0	1	0	1	0	2	19
New Hampshire:											
Concord.....	1	0	0	0	0	1	0	0	0	0	5
Vermont:											
Barre.....	0	0	0	0	0	0	0	0	0	0	-----
Burlington.....	1	5	0	0	0	0	0	0	0	0	13
Massachusetts:											
Boston.....	59	102	0	0	0	18	1	1	0	95	228
Fall River.....	3	4	0	0	0	1	1	0	0	4	32
Springfield.....	10	2	0	0	0	2	0	0	0	12	46
Worcester.....	11	5	0	0	0	1	0	1	0	6	54
Rhode Island:											
Pawtucket.....	1	0	0	0	0	0	0	0	0	1	-----
Providence.....	8	11	0	0	0	2	0	3	0	5	85
Connecticut:											
Bridgeport.....	8	23	0	0	0	0	0	0	0	3	30
Hartford.....	6	5	0	0	0	0	0	0	0	8	43
New Haven.....	9	13	0	0	0	0	0	0	0	12	43
MIDDLE ATLANTIC											
New York:											
Buffalo.....	22	11	0	0	0	8	1	1	1	13	152
New York.....	244	170	0	0	0	108	9	6	0	47	1,654
Rochester.....	14	20	0	0	0	2	1	0	1	6	73
Syracuse.....	18	9	0	0	0	3	1	0	0	91	50
New Jersey:											
Camden.....	4	10	0	0	0	3	0	0	0	1	42
Newark.....	24	26	0	0	0	7	1	0	0	15	118
Trenton.....	5	10	0	0	0	6	0	0	0	0	43
Pennsylvania:											
Philadelphia.....	73	99	0	0	0	29	3	0	1	43	590
Pittsburgh.....	32	57	0	0	0	15	0	9	0	42	187
Reading.....	1	7	0	0	0	0	1	0	0	5	28

1 No estimate made.

1 Pulmonary tuberculosis only.

## City reports for week ended February 6, 1926—Continued

Division, State, and city	Scarlet fever		Smallpox			Tuber- culo- sis, deaths re- ported	Typhoid fever			Whoop- ing cough, cases re- ported	Deaths, all causes
	Cases, esti- mated expect- ancy	Cases re- ported	Cases, esti- mated expect- ancy	Cases re- ported	Deaths re- ported		Cases, esti- mated expect- ancy	Cases re- ported	Deaths re- ported		
EAST NORTH CENTRAL											
Ohio:											
Cincinnati.....	12	31	1	1	0	15	0	2	0	30	163
Cleveland.....	33	51	2	0	0	29	1	0	0	61	237
Columbus.....	11	21	1	0	0	7	0	0	0	0	84
Toledo.....	18	10	3	1	0	0	0	0	0	18	60
Indiana:											
Fort Wayne.....	4	13	0	0	0	1	0	0	0	1	20
Indianapolis.....	9	10	6	14	0	13	0	0	0	34	101
South Bend.....	2	2	1	7	0	0	0	0	0	5	10
Terre Haute.....	3	1	1	0	0	0	0	0	0	0	20
Illinois:											
Chicago.....	155	159	3	0	0	56	3	3	0	41	753
Peoria.....	6	7	1	0	0	1	0	0	0	26	24
Springfield.....	1	1	0	0	0	0	0	0	0	2	21
Michigan:											
Detroit.....	95	140	4	0	0	21	1	0	0	76	312
Flint.....	9	8	2	0	0	0	0	0	0	47	27
Grand Rapids.....	10	28	0	0	0	2	0	0	0	65	32
Wisconsin:											
Madison.....	3	5	1	1	0	1	0	0	0	2	7
Milwaukee.....	39	19	3	0	0	3	1	0	0	49	118
Racine.....	6	0	2	0	0	3	0	0	0	20	24
Superior.....	2	7	4	0	0	0	0	0	0	0	-----
WEST NORTH CENTRAL											
Minnesota:											
Duluth.....	5	33	1	0	0	1	0	0	0	25	23
Minneapolis.....	40	84	15	0	0	5	1	0	0	1	99
St. Paul.....	28	64	8	0	0	5	0	0	0	21	58
Iowa:											
Davenport.....	2	4	2	1	-----	-----	0	0	-----	0	-----
Des Moines.....	8	4	2	0	-----	-----	0	0	-----	0	-----
Sioux City.....	2	4	1	3	-----	-----	0	0	-----	2	-----
Waterloo.....	2	2	0	8	-----	-----	0	0	-----	2	-----
Missouri:											
Kansas City.....	13	20	2	1	0	11	0	3	0	26	123
St. Joseph.....	3	4	0	0	0	2	0	0	0	1	38
St. Louis.....	36	141	4	1	0	6	1	0	0	5	220
North Dakota:											
Fargo.....	2	0	0	0	0	0	0	0	0	2	0
Grand Forks.....	1	0	0	1	-----	-----	0	0	-----	0	-----
South Dakota:											
Aberdeen.....	0	0	0	0	-----	-----	0	0	-----	0	-----
Sioux Falls.....	3	-----	1	-----	-----	-----	0	-----	-----	-----	-----
Nebraska:											
Lincoln.....	3	2	1	0	0	0	0	0	0	3	16
Omaha.....	5	13	6	13	0	1	1	0	0	7	50
Kansas:											
Topeka.....	1	6	0	0	0	0	0	0	0	2	22
Wichita.....	4	3	1	0	0	0	0	0	0	4	31
SOUTH ATLANTIC											
Delaware:											
Wilmington.....	3	4	0	0	0	0	0	0	0	6	36
Maryland:											
Baltimore.....	43	29	0	0	0	25	2	1	0	25	339
Cumberland.....	1	0	0	0	0	0	0	0	0	4	16
Frederick.....	1	0	0	0	0	0	0	0	0	0	6
District of Col.:											
Washington.....	24	24	2	0	0	11	1	2	0	12	188
Virginia:											
Lynchburg.....	1	2	0	0	0	1	0	0	0	0	11
Norfolk.....	1	5	0	2	0	2	0	0	0	0	-----
Richmond.....	4	9	0	0	0	5	0	1	0	0	57
Roanoke.....	1	3	0	1	0	1	0	0	0	0	22
West Virginia:											
Charleston.....	1	1	0	0	0	4	0	0	0	12	11
Huntington.....	1	1	0	0	0	1	0	0	0	0	16
Wheeling.....	1	2	0	0	0	0	1	0	0	1	19
North Carolina:											
Raleigh.....	1	0	0	0	0	1	0	0	0	2	18
Wilmington.....	0	0	1	0	0	2	0	0	0	1	5
Winston-Salem.....	1	3	2	8	0	3	0	0	0	19	14

## City reports for week ended February 6, 1926—Continued

Division, State, and city	Scarlet fever		Smallpox			Tuber- culo- sis, deaths re- ported	Typhoid fever			Whoop- ing cough, cases re- ported	Deaths, all causes
	Cases, esti- mated expect- ancy	Cases re- ported	Cases, esti- mated expect- ancy	Cases re- ported	Deaths re- ported		Cases, esti- mated expect- ancy	Cases re- ported	Deaths re- ported		
SOUTH ATLANTIC-- continued											
South Carolina:											
Charleston.....	1	0	0	0	0	1	0	2	0	0	37
Columbia.....	0	0	0	0	0	0	0	0	0	0	-----
Greenville.....	0	0	0	0	0	1	0	0	0	0	6
Georgia:											
Atlanta.....	4	3	2	1	0	3	0	0	0	0	63
Brunswick.....	0	0	0	0	0	0	0	0	0	0	1
Savannah.....	1	0	0	1	0	3	0	0	0	0	38
Florida:											
St. Petersburg.....	0	-----	0	-----	0	1	0	-----	0	-----	24
Tampa.....	1	2	0	41	0	3	1	1	0	0	47
EAST SOUTH CEN- TRAL											
Kentucky:											
Covington.....	1	0	0	0	0	0	0	0	0	0	21
Louisville.....	5	4	0	0	0	3	0	2	0	1	88
Tennessee:											
Memphis.....	4	13	3	1	0	4	0	0	0	3	75
Nashville.....	4	1	0	1	0	3	1	0	0	3	60
Alabama:											
Birmingham.....	3	4	4	5	0	6	1	2	1	9	98
Mobile.....	0	0	0	1	0	0	0	0	0	0	24
Montgomery.....	0	1	1	0	0	0	0	0	0	0	13
WEST SOUTH CEN- TRAL											
Arkansas:											
Port Smith.....	1	0	1	0	-----	-----	0	0	-----	0	-----
Little Rock.....	1	1	0	0	-----	5	0	1	0	2	-----
Louisiana:											
New Orleans.....	5	15	1	4	0	14	2	0	0	0	220
Shreveport.....	0	4	3	0	0	4	0	0	0	0	26
Oklahoma:											
Oklahoma City.....	2	2	4	0	0	0	0	0	0	0	19
Texas:											
Dallas.....	3	5	2	0	0	3	0	0	0	10	57
Galveston.....	0	0	0	24	0	1	1	0	0	0	15
Houston.....	1	5	0	8	0	8	0	0	0	1	60
San Antonio.....	0	2	0	0	0	11	0	0	0	0	79
MOUNTAIN											
Montana:											
Billings.....	1	0	0	0	0	1	0	0	0	1	5
Great Falls.....	1	2	2	0	0	0	0	0	0	11	9
Helena.....	0	0	0	0	0	1	0	0	0	0	6
Missoula.....	0	1	1	0	0	0	0	0	0	0	1
Idaho:											
Boise.....	1	1	0	7	0	0	0	0	0	0	5
Colorado:											
Denver.....	12	7	3	0	0	10	0	1	0	69	92
Pueblo.....	2	3	0	0	0	0	0	0	0	2	13
New Mexico:											
Albuquerque.....	1	2	0	0	0	7	0	0	0	6	25
Utah:											
Salt Lake City.....	4	3	3	1	0	2	0	3	0	19	40
Nevada:											
Reno.....	0	0	0	0	0	0	0	0	0	0	5
PACIFIC											
Washington:											
Seattle.....	11	32	4	3	-----	-----	0	1	-----	7	-----
Spokane.....	3	34	6	1	-----	-----	0	0	-----	0	-----
Tacoma.....	3	0	3	17	0	0	0	2	0	0	-----
Oregon:											
Portland.....	6	13	11	5	0	4	0	1	0	2	71
California:											
Los Angeles.....	20	38	4	87	8	28	2	2	0	2	285
Sacramento.....	2	5	0	6	0	4	0	0	0	0	29
San Francisco.....	16	12	4	6	1	14	1	1	0	4	195

## City reports for week ended February 6, 1926—Continued

Division, State, and city	Cerebrospinal meningitis		Lethargic encephalitis		Pellagra		Polio-myelitis (infantile paralysis)		
	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases, estimated expectancy	Cases	Deaths
<b>NEW ENGLAND</b>									
Massachusetts:									
Boston.....	3	2	0	1	0	0	1	0	0
<b>MIDDLE ATLANTIC</b>									
New York:									
New York.....	6	2	5	3	0	1	1	1	0
New Jersey:									
Newark.....	0	0	1	0	0	0	0	0	0
Pennsylvania:									
Philadelphia.....	2	1	0	0	0	0	0	0	0
<b>EAST NORTH CENTRAL</b>									
Ohio:									
Columbus.....	0	0	0	1	0	0	0	0	0
Illinois:									
Chicago.....	1	0	0	0	0	0	1	0	0
<b>WEST NORTH CENTRAL</b>									
Missouri:									
Kansas City.....	0	0	0	0	1	1	0	0	0
Kansas:									
Topeka.....	1	0	0	0	0	0	0	0	0
Wichita.....	1	0	0	0	0	0	0	0	0
<b>SOUTH ATLANTIC</b>									
Maryland:									
Baltimore.....	1	0	2	0	0	0	1	0	0
District of Columbia:									
Washington.....	0	0	0	0	0	0	0	0	1
West Virginia:									
Huntington.....	0	1	0	0	0	0	0	0	0
South Carolina:									
Charleston.....	0	0	0	0	0	1	0	0	0
<b>EAST SOUTH CENTRAL</b>									
Tennessee:									
Memphis.....	0	0	0	0	1	0	0	0	0
Nashville.....	0	0	0	0	0	0	0	1	0
<b>WEST SOUTH CENTRAL</b>									
Louisiana:									
New Orleans.....	0	0	0	0	2	1	0	0	0
Texas:									
Houston.....	0	0	0	0	0	1	0	0	0
<b>MOUNTAIN</b>									
Colorado:									
Denver.....	0	0	0	1	0	0	0	0	0
Utah:									
Salt Lake City.....	0	1	0	0	0	0	0	0	0
<b>PACIFIC</b>									
Washington:									
Tacoma.....	1	0	0	0	0	0	0	0	0
California:									
Los Angeles.....	1	0	1	0	0	0	0	0	0
Sacramento.....	1	1	0	0	0	0	0	0	0
San Francisco.....	2	0	0	0	0	0	0	0	0

\* Typhus fever, 1 case, at Baltimore, Md.



The following table gives the rates per 100,000 population for 103 cities for the five-week period ended February 6, 1926, compared with those for a like period ended February 7, 1925. The population figures used in computing the rates are approximate estimates as of July 1, 1925 and 1926, respectively, authoritative figures for many of the cities not being available. The 103 cities reporting cases had an estimated aggregate population of nearly 30,000,000 in 1925 and nearly 30,500,000 in 1926. The 96 cities reporting deaths had more than 29,250,000 estimated population in 1925 and more than 29,750,000 in 1926. The number of cities included in each group and the estimated aggregate populations are shown in a separate table below.

*Summary of weekly reports from cities, January 3 to February 6, 1926—Annual rates per 100,000 population—Compared with rates for the corresponding period of 1925<sup>1</sup>*

## DIPHTHERIA CASE RATES

	Week ended—									
	Jan. 10, 1925	Jan. 9, 1926	Jan. 17, 1925	Jan. 16, 1926	Jan. 24, 1925	Jan. 23, 1926	Jan. 31, 1925	Jan. 30, 1926	Feb. 7, 1925	Feb. 6, 1926
103 cities.....	145	170	167	145	159	142	<sup>2</sup> 160	<sup>3</sup> 142	<sup>4</sup> 169	<sup>5</sup> 134
New England.....	247	139	173	144	165	132	192	118	185	97
Middle Atlantic.....	130	182	187	151	174	137	155	130	170	129
East North Central.....	122	151	132	135	121	131	<sup>2</sup> 126	138	136	119
West North Central.....	139	283	247	253	193	206	243	<sup>3</sup> 261	247	<sup>5</sup> 320
South Atlantic.....	161	178	115	141	144	152	121	116	<sup>4</sup> 145	133
East South Central.....	110	52	84	67	74	73	89	42	58	42
West South Central.....	137	189	185	120	154	155	141	142	167	138
Mountain.....	231	182	148	127	231	155	129	264	185	127
Pacific.....	185	97	196	81	213	140	279	167	257	189

## MEASLES CASE RATES

	207	1,146	188	973	204	1,335	<sup>2</sup> 204	<sup>3</sup> 1,385	<sup>4</sup> 242	<sup>5</sup> 1,482
103 cities.....										
New England.....	381	3,094	424	2,867	479	2,572	467	2,751	556	2,408
Middle Atlantic.....	168	995	157	845	186	1,088	205	1,185	204	1,347
East North Central.....	391	1,761	327	1,302	352	2,068	<sup>2</sup> 340	2,088	415	2,152
West North Central.....	18	148	12	127	26	156	20	<sup>3</sup> 113	16	<sup>5</sup> 406
South Atlantic.....	79	1,269	42	1,356	36	2,477	35	2,280	<sup>4</sup> 46	2,579
East South Central.....	26	52	42	239	68	285	84	394	47	711
West South Central.....	4	0	22	17	13	13	13	26	35	34
Mountain.....	129	55	259	91	240	118	277	100	758	91
Pacific.....	185	65	152	51	52	65	17	73	58	105

## SCARLET FEVER CASE RATES

	207	270	344	285	356	292	<sup>2</sup> 346	<sup>3</sup> 286	<sup>4</sup> 397	<sup>5</sup> 298
103 cities.....										
New England.....	637	295	542	381	575	300	515	378	592	402
Middle Atlantic.....	323	210	292	237	325	237	299	235	372	209
East North Central.....	166	330	350	321	344	324	<sup>2</sup> 366	300	398	338
West North Central.....	733	580	731	548	780	669	756	<sup>3</sup> 709	844	<sup>5</sup> 749
South Atlantic.....	148	158	246	186	190	186	175	154	<sup>4</sup> 241	163
East South Central.....	210	119	168	140	168	202	200	109	89	119
West South Central.....	141	112	110	90	185	69	194	69	154	138
Mountain.....	370	237	518	319	296	373	250	255	324	155
Pacific.....	180	243	174	270	210	256	215	334	246	326

<sup>1</sup> The figures given in this table are rates per 100,000 population, annual basis, and not the number of cases reported. Populations used are estimated as of July 1, 1925 and 1926, respectively.

<sup>2</sup> Racine, Wis., not included.

<sup>3</sup> Kansas City, Mo., not included.

<sup>4</sup> Wilmington, Del., not included.

<sup>5</sup> Sioux Falls, S. Dak., not included.

Summary of weekly reports from cities, January 3 to February 6, 1926—Annual rates per 100,000 population—Compared with rates for the corresponding period of 1925—Continued

## SMALLPOX CASE RATES

	Week ended—									
	Jan. 10, 1925	Jan. 9, 1926	Jan. 17, 1925	Jan. 16, 1926	Jan. 24, 1925	Jan. 23, 1926	Jan. 31, 1925	Jan. 30, 1926	Feb. 7, 1925	Feb. 6, 1926
103 cities .....	55	33	56	47	68	35	265	241	473	247
New England.....	0	0	0	0	0	0	0	0	0	0
Middle Atlantic.....	3	0	10	2	6	0	9	1	2	0
East North Central.....	38	48	37	37	45	33	338	43	36	16
West North Central.....	213	65	187	51	175	36	189	362	141	254
South Atlantic.....	29	43	58	68	35	56	42	58	458	101
East South Central.....	362	47	200	57	620	47	599	21	756	42
West South Central.....	62	52	31	146	31	99	57	125	119	155
Mountain.....	28	36	55	18	92	27	46	18	28	73
Pacific.....	141	111	202	280	199	194	168	205	254	324

## TYPHOID FEVER CASE RATES

103 cities .....	32	13	20	11	17	13	217	28	413	?
New England.....	14	31	24	2	19	9	7	9	29	
Middle Atlantic.....	49	14	21	16	20	10	19	9	13	
East North Central.....	13	11	22	8	10	3	210	4	8	
West North Central.....	6	2	10	4	6	4	12	32	0	2
South Atlantic.....	52	9	19	8	12	8	35	9	116	5
East South Central.....	47	16	16	16	26	5	21	10	11	2
West South Central.....	66	22	66	13	40	151	57	17	22	3
Mountain.....	9	9	0	9	46	0	18	18	28	36
Pacific.....	25	11	6	13	14	16	3	11	17	16

## INFLUENZA DEATH RATES

96 cities .....	20	21	21	23	21	20	222	228	429	236
New England.....	17	9	26	14	10	7	26	17	46	12
Middle Atlantic.....	20	18	18	16	20	14	16	18	24	20
East North Central.....	15	12	14	11	17	8	211	12	12	12
West North Central.....	13	8	2	19	19	10	15	27	19	219
South Atlantic.....	33	15	42	23	21	39	36	36	444	68
East South Central.....	42	83	42	88	58	57	68	73	63	104
West South Central.....	39	47	82	80	87	94	77	151	92	180
Mountain.....	18	46	28	64	9	18	37	73	55	109
Pacific.....	18	57	11	46	11	39	18	78	36	67

## PNEUMONIA DEATH RATES

96 cities .....	185	220	206	211	202	199	198	194	214	206
New England.....	117	246	151	208	208	210	232	144	204	201
Middle Atlantic.....	227	229	259	236	233	227	229	217	252	213
East North Central.....	143	176	143	153	132	139	136	136	152	145
West North Central.....	87	140	104	125	117	81	114	106	106	125
South Atlantic.....	232	269	271	276	242	287	238	284	295	344
East South Central.....	268	332	173	285	294	228	278	208	299	249
West South Central.....	247	335	426	354	343	312	218	444	334	387
Mountain.....	222	127	240	328	314	273	305	164	185	228
Pacific.....	164	220	145	167	185	185	193	174	175	185

<sup>2</sup> Racine, Wis., not included.

<sup>3</sup> Kansas City, Mo., not included.

<sup>4</sup> Wilmington, Del., not included.

<sup>5</sup> Sioux Falls, S. Dak., not included.

*Number of cities included in summary of weekly reports, and aggregate population of cities in each group, approximated as of July 1, 1925 and 1926, respectively*

Group of cities	Number of cities reporting cases	Number of cities reporting deaths	Aggregate population of cities reporting cases		Aggregate population of cities reporting deaths	
			1925	1926	1925	1926
Total .....	103	96	29,944,996	30,473,129	29,251,658	29,764,201
New England.....	12	12	2,176,124	2,206,124	2,176,124	2,206,124
Middle Atlantic.....	10	10	10,346,970	10,476,970	10,346,970	10,476,970
East North Central.....	16	16	7,481,656	7,655,436	7,481,656	7,655,436
West North Central.....	14	11	2,594,962	2,634,662	2,461,380	2,499,036
South Atlantic.....	21	21	2,716,070	2,776,070	2,716,070	2,776,070
East South Central.....	7	7	993,103	1,004,953	993,103	1,004,953
West South Central.....	8	6	1,184,057	1,212,057	1,078,198	1,103,695
Mountain.....	9	9	563,912	572,773	563,912	572,773
Pacific.....	6	4	1,888,142	1,934,084	1,434,245	1,469,144

# FOREIGN AND INSULAR

## THE FAR EAST

*Report for week ended January 23, 1926.*—The following report for the week ended January 23, 1926, was transmitted by the Far Eastern Bureau of the health section of the League of Nations' secretariat, located at Singapore, to the headquarters at Geneva:

Port	Plague		Cholera		Smallpox	
	Cases	Deaths	Cases	Deaths	Cases	Deaths
Calcutta.....	—	0	—	50	56	27
Bombay.....	—	0	—	0	13	8
Madras.....	—	0	—	10	10	—
Rangoon.....	—	4	—	0	7	2
Karachi.....	—	0	—	0	3	0
Negapatam.....	—	0	—	3	0	0
Colombo.....	0	0	0	0	1	0
Basra.....	0	0	0	0	8	6
Singapore.....	0	0	0	0	0	0
Port Swettenham.....	0	0	0	0	0	0
Penang.....	0	0	0	0	0	0
Batavia.....	0	0	0	0	0	0
Scerabaya.....	0	0	0	0	3	1
Samarang.....	0	0	0	0	0	0
Belawan Deli.....	0	0	0	0	0	0
Padang (Sumatra).....	0	0	0	0	0	0
Sabang (Rho).....	0	0	0	0	0	0
Macassar.....	2	2	0	0	0	0
Pontianak (Borneo).....	0	0	0	0	0	0
Sandakan (North Borneo).....	0	0	0	0	0	0
Kuching (Sarawak).....	0	0	0	0	1	0
Timor Dilly.....	0	0	0	2	0	0
Manila.....	0	0	4	2	0	0
Zamboanga.....	0	0	0	0	0	0
Bangkok.....	2	1	30	23	8	6
Saigon and Cholon.....	0	0	0	0	0	0
Haiphong.....	0	0	0	0	0	0
Tourane.....	0	0	0	0	0	0
Hongkong.....	0	0	0	0	0	0
Shanghai.....	0	0	0	0	—	16
Amoy.....	0	0	0	0	2	0
Nagasaki.....	0	0	0	0	0	0
Yokohama.....	0	0	0	0	0	0
Simonoseki.....	0	0	0	0	0	0
Moji.....	0	0	0	0	0	0
Kobe.....	0	0	0	0	0	0
Osaka.....	0	0	1	0	0	0
Niigata.....	0	0	0	0	0	0
Tsuruga.....	0	0	0	0	0	0
Hakodate.....	0	0	0	0	0	0
Keelung.....	0	0	0	0	0	0
Fusan.....	0	0	0	0	0	0
Dairen.....	0	0	0	0	1	0
Adelaide.....	0	0	0	0	0	0
Brisbane.....	0	0	0	0	0	0
Fremantle.....	0	0	0	0	0	0
Melbourne.....	0	0	0	0	0	0
Sydney.....	0	0	0	0	0	0
Rockhampton.....	0	0	0	0	0	0
Townsville.....	0	0	0	0	0	0
Port Darwin.....	0	0	0	0	0	0
Broome.....	0	0	0	0	0	0
Port Moresby.....	0	0	0	0	0	0
Auckland.....	0	0	0	0	0	0

Port	Plague		Cholera		Smallpox	
	Cases	Deaths	Cases	Deaths	Cases	Deaths
Wellington.....	0	0	0	0	0	0
Christchurch.....	0	0	0	0	0	0
Invercargill.....	0	0	0	0	0	0
Honolulu.....	0	0	0	0	0	0
Suez.....	0	0	0	0	0	0
Alexandria.....	0	0	0	0	0	0
Port Said.....	0	0	0	0	0	0
Mombasa (Kenya).....	0	0	0	0	0	0
Massowah.....	0	0	0	0	0	0
Djibuti.....	0	0	0	0	0	0
Mozambique.....	0	0	0	0	1	0
Louiseo Marques.....	0	0	0	0	0	0
Durban.....	0	0	0	0	0	0
East London.....	0	0	0	0	0	0
Port Elizabeth.....	0	0	0	0	0	0
Cape Town.....	0	0	0	0	0	0
Port Louis (Mauritius).....	0	0	0	0	0	0
Seychelles.....	0	0	0	0	0	0

## BRAZIL

*Plague—Bahia.*—During the week ended January 2, 1926, one case of plague with one death was reported at Bahia, Brazil.

## CANADA

*Communicable diseases—January 31–February 6, 1926.*—The following table shows the number of cases of certain communicable diseases in seven Provinces of Canada during the week ended February 6, 1926. The information was supplied by the Canadian Ministry of Health.

Disease	Nova Scotia	New Brunswick	Quebec	Ontario	Manitoba	Saskatchewan	Alberta	Total
Influenza.....				1				1
Cerebrospinal fever.....	17							17
Poliomyelitis.....			1					1
Smallpox.....				9	2	16	6	33
Typhoid fever.....			9	1	2		1	13

## CHINA

*Disease prevalence—Chinese Eastern Railway—1922–1924.*—Prevalence of disease among the railway population on the line of the Chinese Eastern Railway during the years 1922 to 1924, inclusive, has been reported as follows:

Disease	Cases		
	1922	1923	1924
Influenza.....	12,379	8,991	8,846
Malaria.....	2,193	1,201	793
Scarlet fever.....	198	370	301
Tuberculosis.....	520	1,135	1,016
Typhoid fever.....	1,160	438	257

## COLOMBIA

*Rodent plague reported in Buenaventura, Colombia.*—Information received under date of February 12 states that a plague-infected rat has been reported in Buenaventura, Colombia.

## CUBA

*Communicable diseases—Habana—January 1-31, 1926.*—During January, 1926, communicable diseases were reported at Habana, Cuba, as follows:

Disease	New cases	Deaths	Remain- ing under treat- ment Jan. 31, 1926	Disease	New cases	Deaths	Remain- ing under treat- ment Jan. 31, 1926
Chicken pox.....	30	-----	20	Measles.....	67	3	18
Diphtheria.....	13	-----	2	Scarlet fever.....	14	1	6
Leprosy.....	-----	-----	8	Typhoid fever <sup>1</sup> .....	20	5	14
Malaria <sup>1</sup> .....	65	-----	25				

<sup>1</sup> Many of these cases from the interior.

*Leprosy—Tuberculosis—Isle of Pines.*—Under date of February 2, 1926, 2 cases of leprosy and 55 cases of tuberculosis were reported present in the Isle of Pines, Cuba. Population, 4,228.

## JAMAICA

*Smallpox (reported as alastrim)—December 27, 1925—January 30, 1926.*—During the five-week period ended January 30, 1926, 90 cases of smallpox (reported as alastrim) were notified in the island of Jamaica at localities outside of the parish and city of Kingston, and 48 cases in Kingston.

*Other diseases.*—Occurrence of other diseases was noted during the same period as follows: Cerebrospinal meningitis, 1 case; chicken pox, 8 cases; leprosy, 1 case; ophthalmia neonatorum, 2 cases; tuberculosis (pulmonary), 44 cases (Kingston, 12 cases); typhoid fever, 61 cases (Kingston, 8 cases).

*Total mortality, November–December, 1925.*—The total number of deaths from all causes reported in the island was, for the month of November, 1925, 130, and for December, 1925, 111. Population, estimated, 858,118; population of Kingston, 62,707.

## MADAGASCAR

*Plague—November, 1925.*—During the month of November, 1925, 232 cases of plague, with 220 deaths, were reported in the island of Madagascar. For distribution of occurrence according to locality and type of disease, see page 410.

## MAURITIUS

*Plague—November, 1925.*—During the month of November, 1925, two cases of plague, with one death, were reported on the island of Mauritius. The cases occurred at Pamplemousses and Port Louis.

## MEXICO

*Fatal case of typhus fever—Vera Cruz—February 12, 1926.*—A fatal case of typhus fever was reported at Vera Cruz, Mexico, February 12, 1926. The case occurred in a native of the State of Campeche who arrived sick from Mexico City.

## SALVADOR

*Mortality—October and November, 1925.*—Mortality from all causes in the Republic of Salvador for the months of October and November, 1925, has been reported as follows: October, 2,527 deaths; November, 2,679 deaths. Population, estimated, 1,500,000.

*Prevalent diseases.*—The most prevalent diseases reported in the Republic during the two months under report were malarial and other tropical fevers. In the city of San Salvador (population 83,000) a total of 27 deaths from tuberculosis was reported during the same period.

## CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER

The reports contained in the following tables must not be considered as complete or final as regards either the lists of countries included or the figures for the particular countries for which reports are given.

Reports Received During Week Ended February 26, 1926 <sup>1</sup>

## CHOLERA

Place	Date	Cases	Deaths	Remarks
India.....				Nov. 29-Dec. 12, 1925: Cases, 4,752; deaths, 2,756.
Calcutta.....	Dec. 27-Jan. 2.....	10	9	
Madras.....	Jan. 3-16.....	26	22	
Philippine Islands:				
Manila.....	Jan. 4-10.....	1	7	
Province—				
Laguna.....	Dec. 20-26.....	2	1	
Siam:				
Bangkok.....	Dec. 20-26.....	61	32	
Do.....	Dec. 27-Jan. 2.....	23	14	

## PLAGUE

Brazil:				
Bahia.....	Dec. 27-Jan. 2.....	1	1	
Colombia:				
Buenaventura.....				Feb. 12, 1926: Plague-infected rat.
India.....				Nov. 29-Dec. 12, 1925: Cases, 2,542; deaths, 1,860.
Bombay.....	Jan. 3-9.....	2	2	
Rangoon.....	Dec. 20-26.....	4	3	
Java:				
Batavia.....	Dec. 26-Jan. 1.....	46	43	
Soerabaya.....	Dec. 6-19.....	15	15	

<sup>1</sup> From medical officers of the Public Health Service, American consuls, and other sources.

# **CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued**

## **Reports Received During Week Ended February 26, 1926—Continued**

### **PLAGUE—Continued**

Place	Date	Cases	Death	Remarks
Madagascar.....	-----	-----	-----	Nov. 1-20, 1925: Cases, 232; deaths, 220.
Locality—				
Fort Dauphin.....	Nov. 16-30.....	1	1	Bubonic.
Itasy Province (Miarinarivo).....	.....do.....	13	13	Bubonic, 8; pneumonic, 2; septicemic, 3.
Moramanga Province.....	Nov. 1-30.....	8	8	Bubonic, 3; pneumonic, 3; septicemic, 2.
Tamatave (port).....	.....do.....	5	5	Bubonic.
Tananarive Province—				
Tananarive Town.....	.....do.....	11	11	Bubonic, 6, pneumonic, 1; septicemic, 4.
Other localities.....	.....do.....	194	182	Bubonic, cases, 52; deaths, 45; pneumonic, 94, 89; septicemic, 48, 48.
Mauritius.....				November, 1925: Cases, 2; deaths, 1.
Pamplemousses.....	November.....	1	-----	
Port Louis.....	.....do.....	1	1	

### **SMALLPOX**

Arabia:				
Aden.....	Jan. 10-16.....	2	1	
Canada.....				Jan. 31-Feb. 6, 1926: Cases, 33.
Alberta.....	Jan. 31-Feb. 6.....	6	-----	
Manitoba.....	.....do.....	2	-----	
Ontario.....	.....do.....	9	-----	
Saskatchewan.....	.....do.....	16	-----	
Ceylon:				
Colombo.....	Jan. 3-9.....	2	-----	Port cases.
China:				
Manchuria—				
Dairen.....	Dec. 21-27.....	6	-----	
Do.....	Dec. 28-Jan. 3.....	11	2	
South Manchuria—				
An-shan.....	Jan. 10-16.....	1	-----	South Manchurian Railway.
Changchun.....	.....do.....	1	-----	Do.
Kai-yuan.....	.....do.....	2	-----	Do.
Swatow.....	.....do.....	-----	-----	Prevalent.
Egypt:				
Alexandria.....	Jan. 8-14.....	2	1	
Great Britain:				
Leeds.....	Jan. 17-23.....	2	-----	
Newcastle-on-Tyne.....	.....do.....	6	-----	
Sheffield.....	Jan. 10-23.....	8	-----	
India.....				Nov. 29-Dec. 12, 1925: Cases, 4,782; deaths, 1,013
Bombay.....	Dec. 20-26.....	4	4	
Do.....	Dec. 27-Jan. 9.....	26	13	
Calcutta.....	Dec. 27-Jan. 2.....	30	13	
Karachi.....	Jan. 3-9.....	3	2	
Madras.....	Jan. 3-16.....	15	4	
Rangoon.....	Dec. 20-26.....	1	-----	
Indo-China (French):				
Saigon.....	Dec. 21-27.....	2	1	
Iraq:				
Bagdad.....	Dec. 27-Jan. 2.....	5	2	
Jamaica.....				Dec. 27, 1925-Jan. 30, 1926: Cases, 90 (reported as alastrim). Localities outside Kingston. Reported as alastrim.
Kingston.....	Dec. 27-Jan. 30.....	48	-----	
Java:				
Soerabaya.....	Dec. 6-19.....	114	20	
Mexico:				
San Luis Potosi.....	Jan. 31-Feb. 6.....	-----	11	Prevalence stated to be decreasing.
Portugal:				
Lisbon.....	Dec. 28-Jan. 17.....	-----	17	
Siam:				
Bangkok.....	Dec. 20-25.....	3	1	
Do.....	Dec. 26-Jan. 2.....	3	3	
Spain:				
Valencia.....	Jan. 17-30.....	5	-----	
Union of South Africa:				
Orange Free State—				
Ladybrand district.....	Dec. 27-Jan. 2.....	-----	-----	Outbreaks.
Transvaal—				
Belfast district.....	.....do.....	-----	-----	Do



# **CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued**

## **Reports Received During Week Ended February 26, 1926—Continued**

### **TYPHUS FEVER**

Place	Date	Cases	Deaths	Remarks
Bulgaria:				
Sofia.....	Jan. 8-14.....	2	-----	
China:				
Antung.....	Jan. 4-10.....	1	-----	
Egypt:				
Alexandria.....	Jan. 8-14.....	1	-----	
Cairo.....	Nov. 5-11.....	2	2	
Greece:				
Saloniki.....	Dec. 29-Jan. 4.....	1	-----	
Mexico:				
Mexico City.....	Jan. 24-30.....	10	-----	Including municipalities in Federal District.
Vera Cruz.....	Feb. 12.....	-----	1	
Union of South Africa:				
Transvaal—				
Bloemhof district.....	Dec. 27-Jan. 2.....	-----	-----	Outbreaks. On farm.

## **Reports Received from December 23, 1925, to February 19, 1926<sup>1</sup>**

### **CHOLERA**

Place	Date	Cases	Deaths	Remarks
India.....				Oct. 18-Nov. 28, 1925: Cases, 10,991; deaths, 6,498.
Calcutta.....	Nov. 1-28.....	101	80	
Do.....	Dec. 6-26.....	51	54	
Madras.....	Nov. 15-Jan. 2.....	174	70	
Rangoon.....	Nov. 8-Dec. 5.....	4	4	
Indo-China.....				September, 1925: Cases, 0; deaths, 5. September, 1924: Cases, 7; deaths, 4. (European cases, 2.)
Province—				September, 1924: None.
Annam.....	Sept. 1-30.....	2	2	
Cochin China.....	.....do.....	5	3	
Tonkin.....	.....do.....	2	-----	September, 1924: 1 case; 1 death.
Japan.....	Aug. 30-Oct. 17.....	409	-----	September, 1924: None.
Philippine Islands:				
Manila.....	Nov. 9-Dec. 5.....	8	6	
Do.....	Dec. 14-Jan. 3.....	7	4	
Provinces—				
Bataan.....	Nov. 30-Dec. 13.....	10	8	
Bulacan.....	Oct. 18-Nov. 7.....	92	64	
Do.....	Nov. 23-Dec. 13.....	179	60	
Laguna.....	.....do.....	16	13	
Nueva Ecija.....	.....do.....	6	2	
Pampanga.....	Nov. 1-7.....	1	1	
Do.....	Nov. 23-Dec. 19.....	102	75	
Rizal.....	Sept. 27-Nov. 21.....	75	21	
Romblon.....	Dec. 7-13.....	23	12	
Russia.....	May-June.....	7	-----	
Do.....	July-August.....	4	-----	
Siam:				
Bangkok.....	Oct. 4-Nov. 14.....	108	88	
Do.....	Nov. 22-Dec. 19.....	209	117	
On vessel:				
Steamship.....	Oct. 3.....	9	-----	Arrived at Bangkok, Siam; 9 cases in coolie passengers.

### **PLAGUE**

Argentina.....				Jan. 24-30, 1926: Six cases, occurring in interior provinces of Salta and Santa Fe.
Brazil:				
Bahia.....	Nov. 8-14.....	2	-----	
Santos.....	Dec. 8-21.....	-----	2	
British East Africa:				
Kenya—				
Kisumu.....	Nov. 22-Dec. 5.....	1	2	
Uganda Protectorate.....	Sept.—Oct.....	256	233	

<sup>1</sup> From medical officers of the Public Health Service, American consuls, and other sources.

# **CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued**

**Reports Received from December 26, 1925, to February 19, 1926—Continued**

## **PLAGUE—Continued**

Place	Date	Cases	Deaths	Remarks
Canary Islands:				
La Laguna	Dec. 24	3	2	
Las Palmas	do	1		
Do	Jan. 7	1	1	
Santa Cruz de Tenerife	Dec. 18-27	3		
Ceylon:				
Colombo	Nov. 15-28	3	3	1 plague rodent.
Do	Nov. 29-Dec. 5			
Do	Dec. 27-Jan. 2	1	1	
China:				
Nanking	Nov. 15-Jan. 2			Prevalent.
Ecuador:				
Eloy Alfaro	Jan. 1-15	1		
Guayaquil	Nov. 1-Dec. 31	31	12	
Do	Jan. 1-15	15	5	Rats taken, Nov. 1-Dec. 31, 1925: 49,370; rats found infected, 281.
Recreo (county estate)	do	1		Rats taken, Jan. 1-15, 1926: 11,804; rats found infected, 80.
Egypt				Jan. 1-Dec. 9, 1925: Cases, 138
Beni Suef	Nov. 18	1	1	Corresponding period, 1924: Cases, 365.
Fayoum Province	Dec. 3-9	1	1	
Greece:				
Athens	Nov. 1-30	18	4	Including Piræus.
Patras	Nov. 13-Dec. 12	4	1	
India				Oct. 18-Nov. 28, 1925: Cases, 7,420; deaths, 5,031.
Bombay	Dec. 6-12	1	1	
Calcutta	do	1	1	
Karachi	Nov. 1-Dec. 19	4	3	
Madras	Oct. 25-Nov. 7	75	41	
Do	Nov. 15-21	35	22	
Rangoon	Oct. 25-Dec. 12	19	12	
Indo-China				September, 1925: Cases, 17; deaths, 16, September 1924: Cases, fatal, 12
Province—				September, 1924: Cases, 9; deaths, 9.
Cambodia	Sept. 1-30	11	11	September, 1924: 1 case, 1 death.
Cochin China	Sept.-Oct.	14	12	
Iraq:				
Bagdad	Dec. 13-Jan. 2	7	3	
Java:				
Batavia	Oct. 24-Nov. 6	94	89	Province.
Do	Nov. 14-Dec. 25	265	254	
Cheribon	Sept. 27-Oct. 17		166	
Do	Nov. 15-23		59	
Djokjakarta	Oct. 20-Nov. 9			Epidemic in one locality.
Kediri	Dec. 7			Do.
Pekalongan	Sept. 27-Oct. 17		42	
Do	Nov. 8-28		80	
Rembang	Oct. 20			Do.
Soerabaya	Oct. 11-Dec. 5	37	37	
Tegal	Sept. 27-Oct. 17	6	6	
Do	Nov. 8-28		14	
Madagascar:				
Province—				
Itasy	Sept. 16-Oct. 31	20	20	
Moramanga	do	17	17	
Tananarive	do	174	159	
Town—				
Fort Dauphin	Sept. 16-Oct. 15	5	2	
Tamatave (port)	Sept. 16-30	3	2	
Do	Oct. 16-31	4	4	
Tananarive	Sept. 16-30	2	2	
Mauritius Island	Sept. 20-Nov. 14	9	9	
Pamplemousses	Oct. 1-31	2	2	
Port Louis	do	3		
Rivière du Rempart	do	2		
Netherlands India:				
Celebes Island—				
Makassar	Dec. 12			Epidemic.
Nigeria	August-September	349	267	
Peru:				
Huacho	Jan. 26	15		Port 60 miles north of Callao.
Lima	Jan. 1-31	20		In hospital. Some cases in province.
Mollendo	do			12 or 15 cases reported unofficially.

# **CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued**

**Reports Received from December 26, 1925, to February 19, 1926—Continued**

## **PLAGUE—Continued**

Place	Date	Cases	Deaths	Remarks
Russia.....	May-June.....	67	-----	
Do.....	July-August.....	139	-----	
Senegal.....	September-October.....	45	25	
Siam.....	Aug. 23-Oct. 13.....	50	40	
Bangkok.....	Nov. 15-28.....	3	3	
Straits Settlements:				
Singapore.....	Nov. 1-Dec. 5.....	8	8	
Syria:				
Beirut.....	Nov. 11-20.....	1	-----	
Union of South Africa:				
Cape Province—				
Kimberley district.....	Dec. 13-19.....	1	-----	
Middleburg district.....	Dec. 6-12.....	1	-----	European.
Steynsburg district.....	Nov. 15-21.....	1	-----	Native. On farm.
Orange Free State—				
Boshof district.....	Nov. 29-Dec. 5.....	1	1	In native.
Bothaville district.....	Dec. 6-12.....	1	1	Native. On farm.

## **SMALLPOX**

Algeria				
Algiers.....	Nov. 21-Dec. 31.....	177	-----	
Do.....	Jan. 1-10.....	64	-----	
Arabia:				
Aden.....	No. 29-Dec. 5.....	1	-----	Imported.
Argentina:				
Rosario.....	October.....	-----	1	
Australia				
Queensland—				
Brisbane.....	Dec. 9-15.....	1	-----	
Brazil:				
Rio de Janeiro.....	Nov. 1-28.....	134	72	
Do.....	Dec. 6-26.....	65	26	
British East Africa:				
Kenya—				
Mombasa.....	Nov. 15-Dec. 19.....	14	6	
Uganda Protectorate.....	Sept. 1-Oct. 31.....	8	4	
British South Africa:				
Southern Rhodesia.....	Nov. 13-Dec. 23.....	3	-----	
Canada:				
Alberta.....	Jan. 10-23.....	17	-----	Sept. 13-Jan. 2: In 7 Provinces, 186 cases; Jan. 3-23, 1926, cases, 115.
Calgary.....	Dec. 13-19.....	1	-----	From Drumbeller, vicinity of Calgary.
British Columbia—				
Vancouver.....	Jan. 4-10.....	1	-----	
Manitoba.....	Jan. 3-30.....	18	-----	
Winnipeg.....	Dec. 13-19.....	2	-----	
Do.....	Jan. 3-Feb. 6.....	9	-----	
New Brunswick—				
Northumberland.....	Dec. 6-13.....	1	-----	
Ontario.....				December, 1925: Cases, 32; deaths, 1. January, 1926: Cases, 80.
Admaston.....	Jan. 1-31.....	11	-----	
Ottawa.....	Dec. 6-12.....	2	-----	
Do.....	Jan. 3-Feb. 6.....	2	-----	
Toronto.....	Dec. 27-Jan. 2.....	1	-----	
Do.....	Jan. 3-23.....	21	-----	
Trenton.....	Jan. 1-31.....	7	-----	
Saskatchewan.....	Jan. 3-23.....	15	-----	
Moose Jaw.....	do.....	2	-----	
Regina.....	Jan. 24-30.....	1	-----	
Ceylon:				
Colombo.....	Dec. 6-12.....	1	-----	Port case.
China:				
Amoy.....	Oct. 25-Dec. 19.....	-----	1	
Antung.....	Dec. 7-20.....	2	-----	
Chungking.....	Nov. 15-Jan. 9.....	-----	-----	Present.
Foochow.....	Nov. 1-Jan. 9.....	-----	-----	Do.
Hankow.....	Nov. 14-Dec. 26.....	4	-----	
Do.....	Jan. 10-15.....	1	-----	
Hongkong.....	Nov. 22-Dec. 26.....	4	-----	

# **CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued**

**Reports Received from December 26, 1925, to February 19, 1926—Continued**

## **SMALLPOX—Continued**

Place	Date	Cases	Deaths	Remarks
China—Continued.				
Manchuria—				
An-shan.....	Dec. 6-12.....	1	—	
Dairen.....	Oct. 19-Dec. 20.....	67	15	
Mukden.....	Oct. 24-Nov. 15.....	1	—	
Tieh-ling.....	do.....	2	—	
Nanking.....	Nov. 21-Dec. 26.....	—	—	Present.
Do.....	Dec. 27-Jan. 2.....	—	—	Do.
Shanghai.....	Oct. 25-Jan. 2.....	37	36	
Do.....	Jan. 3-9.....	9	16	Cases, foreign.
Swatow.....	Nov. 22-Jan. 9.....	—	—	Do.
Tientsin.....	Nov. 1-Dec. 19.....	2	—	
Egypt:				
Alexandria.....	Dec. 3-31.....	5	2	
France.....				September, October, 1925: Cases, 91.
Gold Coast.....	September, 1925.....	14	4	
Great Britain.				
England and Wales.....	Nov. 15-Dec. 26.....	790	—	
Do.....	Dec. 27-Jan. 23.....	1,161	—	
Hull.....	do.....	29	—	
Newcastle-on-Tyne.....	Nov. 29-Dec. 19.....	6	—	
Do.....	Dec. 27-Jan. 16.....	2	—	
Nottingham.....	Nov. 22-Dec. 26.....	9	—	
Do.....	Dec. 27-Jan. 9.....	2	—	
Sheffield.....	Nov. 22-Dec. 12.....	7	—	
Do.....	Dec. 20-26.....	3	—	
Do.....	Dec. 27-Jan. 9.....	2	—	
Greece.....				Oct. 1-31, 1925: Cases, 16.
Athens.....	Nov. 1-30.....	17	1	
India.....				Oct. 18-Nov. 28, 1925: Cases, 8,827; deaths, 1,915.
Bombay.....	Nov. 8-Dec. 19.....	22	16	
Calcutta.....	Nov. 29-Dec. 26.....	48	25	
Karachi.....	Nov. 1-21.....	23	—	
Do.....	Nov. 29-Dec. 5.....	4	2	
Do.....	Dec. 13-19.....	3	—	
Do.....	Dec. 29-Jan. 2.....	7	2	
Madras.....	Nov. 15-Dec. 26.....	17	5	
Do.....	Dec. 27-Jan. 2.....	3	1	
Rangoon.....	Oct. 25-Nov. 28.....	3	—	
Do.....	Dec. 6-19.....	3	1	
Indo-China.....				September-October, 1925: Cases, 204; deaths, 62. September, 1924: Cases, 78; deaths, 22.
Province—				
Annam.....	Sept. 1-Oct. 31.....	90	23	September, 1924: Cases, 8; deaths, 2.
Cambodia.....	do.....	72	30	September, 1924: Cases, 16; deaths, 1.
Cochin China.....	do.....	61	30	September, 1924: Cases, 43; deaths, 19.
Tonkin.....	do.....	22	—	September, 1924: Cases, 11.
Iraq.....				Sept. 6-Oct. 17, 1925: Cases, 81; deaths, 40.
Bagdad.....	Nov. 1-14.....	4	4	
Do.....	Nov. 22-Dec. 26.....	15	11	
Do.....	Dec. 27-Jan. 2.....	1	—	
Italy.....				Aug. 2-Oct. 31, 1925: Cases, 33.
Rome.....	Oct. 12-25.....	1	—	
Jamaica.....				Nov. 27-Dec. 26, 1925: Cases, 52.
Kingston.....	Nov. 27-Dec. 26.....	43	—	Reported as alastrim
Japan:				
Taiwan.....	Nov. 11-Dec. 10.....	3	—	
Yokohama.....	Dec. 14-20.....	1	—	
Java:				
Batavia.....	Oct. 24-30.....	1	—	
Do.....	Nov. 14-Dec. 25.....	7	—	
Cheribon.....	Nov. 8-14.....	1	—	
Kraksaan.....	Oct. 11-17.....	11	—	
Malang.....	do.....	2	—	
North Bantam.....	Oct. 4-17.....	4	—	
Pekalongan.....	Oct. 25-31.....	1	—	
Probolingo.....	Oct. 11-17.....	1	—	
Soerabaya.....	Oct. 11-Dec. 5.....	467	68	
South Bantam.....	Oct. 11-17.....	1	—	
Tegal.....	Oct. 4-10.....	9	1	
Malta.....	November.....	14	—	

# **CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued**

**Reports Received from December 26, 1925, to February 19, 1926—Continued**

## **SMALLPOX—Continued**

Place	Date	Cases	Deaths	Remarks
Mexico.....				July-September, 1925: Deaths, 1,157.
Aguascalientes.....	Dec. 13-Jan. 2.....	4	3	
Do.....	Jan. 3-30.....		7	
Durango.....	Dec. 1-31.....		1	
Do.....	Jan. 1-31.....		2	
Guadalajara.....	Feb. 1.....		1	
Mexico City.....	Nov. 22-Jan. 2.....	157		Including municipalities in Federal District.
Do.....	Jan. 2-23.....	29		
San Luis Potosi.....	Jan. 24-30.....		2	
Tampico.....	Dec. 21-Jan. 2.....	1	1	
Do.....	Jan. 2-31.....	2		
Torreon.....	Nov. 1-Dec. 31.....		51	
Nigeria.....	August-September.....	108	1	
Persia:				
Tcheran.....	July 23-Sept. 22.....		203	
Peru:				
Arequipa.....	Oct. 1-31.....		1	
Poland.....				Nov. 1-7, 1925: Cases, 8.
Portugal:				
Lisbon.....	Oct. 4-31.....	124		
Do.....	Nov. 16-Dec. 27.....		60	
Do.....	Nov. 14-Dec. 26.....	187		
Do.....	Dec. 27-Jan. 16.....	40		
Oporto.....	Nov. 22-Dec. 19.....	2	3	
Do.....	Dec. 27-Jan. 2.....	1		
Russia.....				May-June, 1925: Cases, 2,333. Later than previously published reports.
Do.....	July-August.....	760		
Siam.....				July 12-Sept. 5, 1925: Cases, 21; deaths, 6.
Sierra Leone:				
Konno district.....	Dec. 16-31.....	5		
Spain:				
Madrid.....	Year 1925.....		18	
Malaga.....	Nov. 29-Dec. 5.....		2	
Do.....	Dec. 27-Jan. 2.....		1	
Valencia.....	Dec. 20-26.....	1		
Do.....	Dec. 27-Jan. 2.....	1		
Do.....	Jan. 10-16.....	3		
Switzerland.....				June 28-Nov. 21, 1925: Cases, 62.
Lucerne.....	Oct. 1-Nov. 30.....	8		
Zurich.....	Dec. 27-Jan. 2.....	1		
Trinidad (West Indies):				
Port of Spain.....	Jan. 22.....	1		Imported.
Tunisia:				
Tunis.....	Nov. 21-30.....	2		
Do.....	Dec. 11-31.....	10	1	
Do.....	Jan. 1-20.....	5		
Union of South Africa:				
Transvaal—				
Pretoria district.....	Dec. 6-12.....			Outbreaks. In native compound.

## **TYPHUS FEVER**

Algeria:				
Algiers.....	October-Dec. 20.....	4		
Argentina:				
Rosario.....	Oct. 13-Dec. 31.....	2		
Bulgaria.....	September-October.....	26	2	
Sofia.....	Dec. 25-31.....	1		
Chile.....				
Valparaiso.....	Nov. 29-Jan. 2.....		2	
China:				
Antung.....	Nov. 29-Dec. 27.....	5	1	
Hongkong.....	Dec. 27-Jan. 2.....	1		
Manchuria—				
Harbin.....	Dec. 17-23.....	1		
Czechoslovakia.....	October, 1925.....	8		
Egypt:				
Port Said.....	Nov. 19-25.....	1		
Finland.....				October, 1925: 1 case.

# **CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued**

**Reports Received from December 26, 1925, to February 19, 1926—Continued**

## **TYPHUS FEVER—Continued**

Place	Date	Cases	Deaths	Remarks
France.....	July-October.....	4	-----	
Germany.....	Oct. 25-31.....	1	-----	
Greece:				
Athens.....	Nov. 1-30.....	11	2	
Ireland:				
Cork County—				
Cork.....	Dec. 26-Jan. 1.....	2	-----	
Do.....	Jan. 2-8.....	5	-----	
Dumanway.....	Nov. 14.....	1	-----	
Galway County.....	Oct. 17.....	1	-----	
Latvia.....	October, 1925.....	2	-----	
Lithuania.....				
Mexico.....				September-October, 1925: Cases, 9; deaths, 1.
Aguascalientes.....	Dec. 14-19.....	1	-----	July-September, 1925: Deaths, 90.
Durango.....	Dec. 1-31.....	-----	1	
Do.....	Jan. 1-31.....	-----	3	
Guadalajara.....	Nov. 8-Jan. 4.....	157	-----	
Mexico City.....	Dec. 27-Jan. 23.....	27	-----	Including municipalities in Federal District.
Do.....	Dec. 21-Jan. 10.....	1	1	
Tampico.....	November, 1925.....	-----	1	
Torreon.....	August, 1925.....	3	-----	
Morocco.....				
Palestine:				
Gaza.....	Dec. 18.....	1	-----	
Jaffa.....	Dec. 1-7.....	1	-----	
Nazareth.....	Nov. 3-9.....	1	-----	
Safad.....	Nov. 24-30.....	1	-----	
Tel-Aviv.....	do.....	1	-----	
Peru:				
Arequipa.....	October, 1925.....	-----	2	
Poland.....	Oct. 11-Nov. 14.....	142	16	
Rumania.....				July, 1925: Cases, 74; deaths, 9.
Russia.....				May-June, 1925: Cases, 10,680.
Do.....				Later than previously published reports.
Union of South Africa.....				July-August, 1925: Cases, 3,136.
Cape Province.....	Oct. 1-31.....	63	5	Oct. 1-31, 1925: Cases, 88; deaths, 7 (colored); cases, 7 (European population).
Do.....	Nov. 8-Dec. 26.....	-----	-----	Colored.
Middleburg district.....	Dec. 6-12.....	1	-----	Outbreaks.
Natal.....	Oct. 1-Dec. 5.....	1	-----	European. On farm.
Orange Free State.....	Nov. 29-Dec. 5.....	23	1	
Do.....	Nov. 1-Dec. 26.....	-----	-----	Outbreaks.
Bethulia district.....	Dec. 6-12.....	-----	-----	Do.
Bothaville district.....	do.....	1	-----	Native. On farm.
Transvaal.....	Oct. 1-31.....	1	1	
Do.....	Dec. 13-26.....	-----	-----	Outbreaks.

## **YELLOW FEVER**

Gold Coast.....	September.....	1	1	
Nigeria.....	August-September.....	2	1	

TREASURY DEPARTMENT

# PUBLIC HEALTH REPORTS

ISSUED WEEKLY

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PUBLIC HEALTH SERVICE

VOLUME 41 :: :: NUMBER 10

MARCH 5 - - - 1926

## SPECIAL ARTICLES

Current World Prevalence of Disease

Division of Venereal Diseases, July 1-December 31, 1925



WASHINGTON  
GOVERNMENT PRINTING OFFICE  
1926

# UNITED STATES PUBLIC HEALTH SERVICE

HUGH S. CUMMING, *Surgeon General*

## DIVISION OF SANITARY REPORTS AND STATISTICS

Asst Surg. Gen B. J. LLOYD, *Chief of Division*

The PUBLIC HEALTH REPORTS are issued weekly by the United States Public Health Service through its Division of Sanitary Reports and Statistics, pursuant to acts of Congress approved February 15, 1893, and August 14, 1912.

They contain: (1) Current information of the prevalence and geographic distribution of preventable diseases in the United States in so far as data are obtainable, and of cholera, plague, smallpox, typhus fever, yellow fever, and other communicable diseases throughout the world. (2) Articles relating to the cause, prevention, or control of disease. (3) Other pertinent information regarding sanitation and the conservation of the public health.

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# PUBLIC HEALTH REPORTS

VOL. 41

MARCH 5, 1926

NO. 10

## CURRENT WORLD PREVALENCE OF DISEASE

REVIEW OF THE MONTHLY EPIDEMIOLOGICAL REPORT ISSUED DECEMBER 15, 1925,  
BY THE HEALTH SECTION OF THE LEAGUE OF NATIONS' SECRETARIAT<sup>1</sup>

The recent cholera outbreaks in the far eastern ports for the most part had come to an end at the beginning of December, and only Bangkok and Calcutta were reporting a considerable number of cases. The Epidemiological Report for December 15, published by the Health Section of the League of Nations' Secretariat, gives the following résumé of these outbreaks:

The first important outbreak occurred in Shanghai in August; no fresh case has been reported there since the middle of November. The infection of various Japanese ports, which followed in September, has been referred to in earlier numbers of this Report. Osaka alone remained infected during the latter half of November, but no fresh case was reported during the week ending December 5. The outbreak which occurred in Manila during the second half of September was promptly controlled, and only sporadic cases remain. During the week ending October 10 there were 9 cases of cholera in the Provinces of Krung Deb in Siam, 8 of which were stated to be imported cases; a serious outbreak in Bangkok followed, which reached its maximum in the second half of November. At the same time the number of cholera deaths in Calcutta rose to 42 during the week ending November 28. April is usually the month of maximum cholera incidence in Calcutta, where an outbreak similar to the present has not occurred since 1920. It is noteworthy that the disease remains relatively quiescent elsewhere in Bengal. Fifteen cholera deaths were reported in the city of Madras during the week ending December 5.

The cholera outbreak in Japan spread during September and October to 14 provinces, principally to those surrounding the inland sea and near Tokio, but during the week ending October 31 only 35 new cases were reported and the outbreak was definitely declining. The total number of cases reported during the two months was 508. No cholera was reported in 1924, only 4 cases in 1923, and 743 cases in 1922, but an outbreak of more general extension occurred in Japan during 1919 and 1920.

The incidence of cholera in India continues low; the cases reported during the four weeks ended October 17 numbered 2,988, compared with 9,124 in the corresponding period of 1924.

*Plague.*—The following information regarding plague incidence in Guayaquil, Ecuador, one of the principal endemic plague areas in South America, is given by the Report:

There were 11 cases and 5 deaths attributed to plague in Guayaquil in October as against 5 in September; 143 infected rats were found in October as against 108

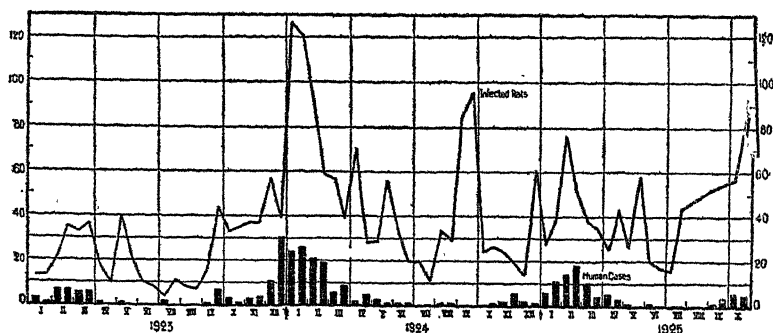
<sup>1</sup> From the Statistical Office, United States Public Health Service.

during the preceding month. December to March is the usual plague season in this city. Human and rat plague foci are centered around the southern market place, which is on the river front. The health service has for several years carried out an intensive rat campaign, the following numbers of rats having been destroyed: 152,000 in 1921, 330,000 in 1922, 448,000 in 1923, 275,000 in 1924, 217,000 up to the end of October, 1925. These numbers are remarkable in view of the fact that Guayaquil has only 100,000 inhabitants. The infection is now confined to *Rattus norvegicus*, a fact which probably explains the large number of infected rats found in proportion to the small number of human cases reported.

Bahia, Brazil, reported 1 case of plague in September and 1 case in October. In the week ended November 14, Bahia reported 2 cases of plague, and in the week ended November 29, Casilda de Santa Fé (Argentina) reported 1 case.

From October 1 to November 13 Greece reported 7 scattered cases of plague.

CASES OF PLAGUE AND INFECTED RATS AT GUAYAQUIL, BY FORTNIGHTLY PERIODS, 1923 TO 1925.



During November Egypt continued to report only sporadic cases of plague, several of which occurred at Port Said. Algeria reported 1 case in the period from November 11-20.

Kenya and Uganda reported 153 and 148 cases, respectively, in the month of October, both figures showing an increase over the month of September and being higher than the October 1924 report. The disease also increased in Madagascar during October, when 177 cases were reported. In West Africa, Ijebu-Ode, in Nigeria, remained the most important center of infection.

In India the plague deaths reported during the four weeks ended October 17 were somewhat fewer than in the preceding four weeks. The disease was prevalent at this period chiefly in Mysore, in the central Provinces, and in Bombay Presidency, all being localities which expect their annual maximum incidence in October. Only in Bombay Presidency was the number of cases significantly higher than in October, 1924.

*Yellow fever.*—Cases of yellow fever reported during the month preceding the publication of the Report were as follows: The Gold

Coast reported 1 case in September and 1 in October; Nigeria 1 case each in August, September, and October; Upper Senegal reported 3 cases at Tukoto in November.

The Health Service of Peru has reported that no case of yellow fever has occurred in Peru since 1922.

*Typhus and relapsing fever.*—Very few cases of either typhus or relapsing fever have been reported in Europe outside of Russia. In Poland, cases of typhus averaged about 20 per week during the summer and early autumn; the fatality was only 6 per cent, indicating that the type was mild.

In European Russia, including the Ukraine, the number of typhus fever cases reported dropped from 1,759 in July to 946 in August; data from a few governments were lacking for both months. Cases of relapsing fever rose slightly from 906 in July to 1,190 in August. "The increase was confined to the Lower Volga and the black soil districts, while it remained rare in the Ukraine, where it was formerly most prevalent," says the Report.

In the Union of South Africa, where there was a rather marked increase in typhus fever during July and August, the number of cases fell from 242 in August to 71 in September.

There were 213 cases of relapsing fever with 67 deaths reported in Nigeria during September.

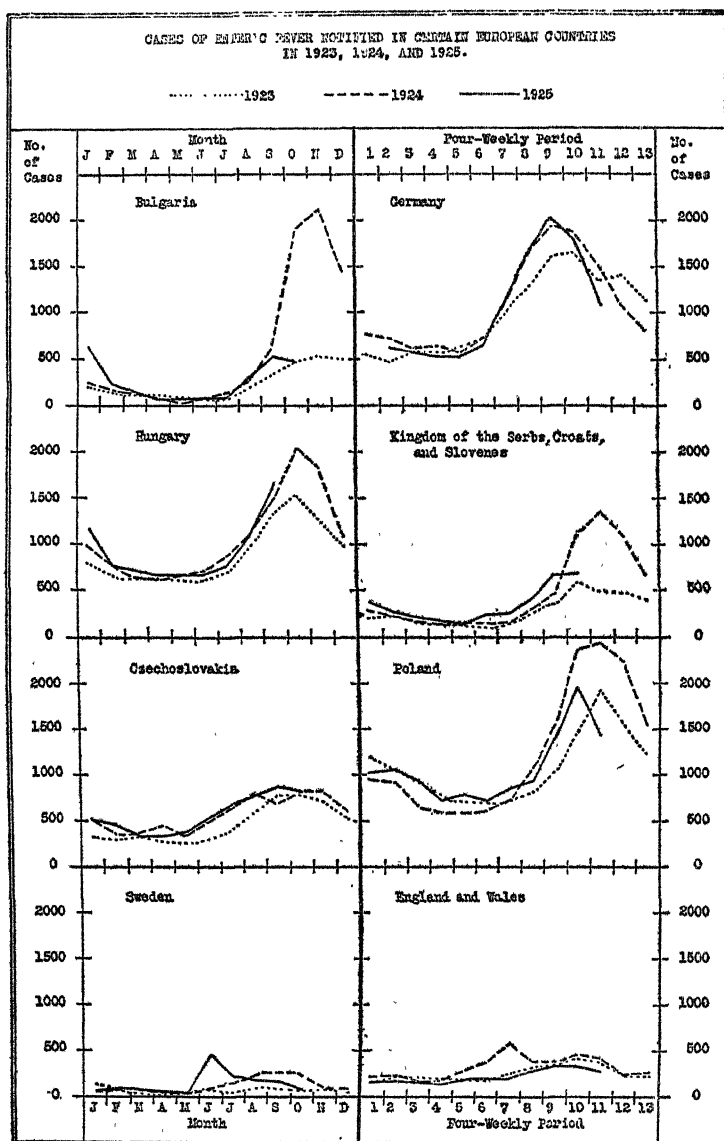
*Smallpox.*—In Java and Madura the seasonal maximum of smallpox was reached early in October, as usual, when 927 cases were reported during the four weeks ended October 10, compared with 1,005 cases in the corresponding period of 1924.

In India the smallpox incidence remained at the same level during September and October (approximately 1,000 cases weekly). November may be expected to show a seasonal increase.

Iraq reported a marked increase in smallpox during September, with a proportionately high mortality.

Smallpox prevalence in most African countries has been quite low in recent months; the outbreaks which occurred earlier in the year in such places as Algeria, Tunisia, Tanganyika Territory, and the Gold Coast Colony having come to an end. The disease is exceptionally rare in South Africa and only the mild type prevails. "Not one death occurred among the 67 cases reported in the Union of South Africa for the first nine months of the year, nor among the 51 reported in Basutoland during the same period, and only 1 death among the 101 cases reported in Northern and Southern Rhodesia. No smallpox has occurred in Nyasaland for two years, except for one case in September. While the case mortality during recent years has varied between 0.6 and 3 per cent in the Union of South Africa, it was about 10 per cent in Basutoland in 1921 and 1922 and about 3 per cent in 1923 and 1924."

*Dysentery.*—The incidence of dysentery was low this year in Europe, and no recurrence of the disease, such as occurred in October,



1924, in east central and southeastern Europe, was observed. The Report states:

Dysentery in Russia has been less prevalent than during 1924, but is still of frequent occurrence throughout the country, including the Asiatic territories. The highest prevalence is found in the Ural and Viatka areas; thus there were 7,067 cases in the Government of Viatka during August, 4,058 in the Votyak territory, and 4,027 in the Bashkir Republic.

*Enteric fever.*—Enteric fever not only was less prevalent in most European countries in 1925 than in 1924, but the peak of the incidence was reached earlier in the autumn than in the preceding year, as can be seen in the accompanying graphs. The improvement was most marked in eastern and southeastern Europe, where the disease was unusually prevalent in 1924. Also in England and Wales the incidence of the disease was less than in the preceding two years.

*Influenza.*—No more than a seasonal increase in influenza was observed in the reports for November. The large towns in continental Europe and those in Great Britain showed an increase in the general death rate as well as in the pneumonia and influenza deaths, but it was not abnormal for the season. In the United States the mortality from influenza and pneumonia as late as December was very similar to that experienced last winter.

*Lethargic encephalitis.*—No increase in lethargic encephalitis was reported by any of the countries where it is notifiable.

*Acute poliomyelitis.*—The number of cases of poliomyelitis reported in Sweden fell from 138 in September to 98 in October and to 50 in November. In the United States, 27 States reported 306 cases in the four weeks ended November 21 compared with 683 in the preceding four weeks. Incidence in other countries reporting was lower than in either of these.

*Scarlet fever.*—Scarlet fever was more prevalent in the autumn of 1925 than in the corresponding season of the previous two years in Great Britain and in central Europe, but the increase indicates only the expected periodic increases rather than any special epidemic situation.

*Diphtheria.*—The incidence of diphtheria corresponds closely to that during the previous year in European countries and is somewhat lower in the United States, Canada, Australia, and New Zealand.

*Anthrax.*—Revised data concerning the occurrence of anthrax in Russia during the year 1924 shows that the areas around the Black Sea and the Caspian Sea are those most affected.

*Anthrax cases reported in Russia during 1924*

District	Cases	Rate per 100,000 population	District	Cases	Rate per 100,000 population
Northeastern.....	1	0.04	Lower Volga.....	1,322	25.9
Northwestern.....	22	.4	Northern Caucasus and Don..	1,878	23.2
Western.....	244	2.8	Transcaucasia.....	625	11.0
Central industrial.....	646	3.6	Kirghiz.....	522	11.7
Viatka-Vietluga.....	61	1.2	Turkestan.....	95	1.3
Ural.....	363	4.5	Siberia.....	559	6.9
Black soil.....	2,178	20.8	Far East.....	28	1.5
Ukraine.....	5,392	19.5	Railways, etc.....	148	-----
Middle Volga.....	1,411	14.7	Total.....	15,495	11.5

The number of cases of anthrax reported in the various Provinces in Italy is given below. The disease is particularly prevalent in Latium and Basilicata.

*Anthrax cases reported in Italy during 1924*

Province	Cases	Rate per 100,000 population	Province	Cases	Rate per 100,000 population
Piedmont.....	37	1.1	Latium.....	517	31.9
Liguria.....	14	1.0	Campania.....	200	5.6
Lombardy.....	32	.6	Apulia.....	206	9.0
Venetia.....	10	.25	Basilicata.....	359	76.6
Emilia.....	5	.16	Calabria.....	283	18.7
Tuscany.....	27	1.0	Sicily.....	252	6.2
Marches.....	14	1.2	Sardinia.....	629	7.3
Umbria.....	30	4.7			
Abruzzi.....	113	7.9	Total.....	2,728	7.3

## MEASLES IN THE UNITED STATES

### REPORTS FROM STATE HEALTH OFFICERS FOR THE FIRST SIX WEEKS OF 1926, COMPARED WITH THE SAME PERIOD OF 1925

During the first six weeks of the year 1926 the health officers of 27 States reported about four times as many cases of measles as they reported during the first six weeks of 1925. The early part of the year 1925, however, was exceptional, very few cases of measles being reported from most localities.

*Cases of measles reported by the health officers of 27 States, January 4 to February 14, 1925, and January 3 to February 13, 1926*

Division and State	Week ended—											
	Jan. 10, 1925	Jan. 9, 1926	Jan. 17, 1925	Jan. 16, 1926	Jan. 24, 1925	Jan. 23, 1926	Jan. 31, 1925	Jan. 30, 1926	Feb. 7, 1925	Feb. 6, 1926	Feb. 14, 1925	Feb. 13, 1926
New England:												
Maine.....	6	4	16	4	8	6	2	19	7	27	1	20
Vermont.....	8	7	0	1	2	6	1	3	3	19	4	5
Massachusetts.....	204	1,651	243	1,550	380	1,601	322	1,534	429	1,538	572	1,564
Connecticut.....	36	562	44	475	42	775	124	779	74	714	68	545
Total.....	344	2,224	303	2,030	432	2,388	449	2,385	513	2,298	645	2,134
Middle Atlantic:												
New York.....	208	2,491	225	1,961	230	2,327	252	2,022	326	2,706	302	3,267
New Jersey.....	137	1,121	135	1,028	89	1,250	115	1,401	127	1,028	128	2,027
Total.....	425	3,612	370	2,989	319	3,577	367	4,023	453	4,724	430	5,294
East North Central:												
Indiana.....	120	202	86	490	100	136	111	175	201	567	140	532
Illinois.....	356	357	288	357	421	501	493	610	471	745	636	691
Michigan.....	166	844	166	844	149	1,253	125	1,601	140	1,774	204	1,754
Wisconsin.....	324	143	310	155	287	162	301	177	378	274	422	253
Total.....	800	702	850	1,840	957	2,052	1,030	2,563	1,193	3,363	1,401	3,230



*Cases of measles reported by the health officers of 27 States, January 4 to February 14, 1925, and January 3 to February 13, 1926—Continued*

Division and State	Week ended—											
	Jan. 10, 1925	Jan. 9, 1925	Jan. 17, 1925	Jan. 16, 1926	Jan. 24, 1925	Jan. 23, 1926	Jan. 31, 1925	Jan. 30, 1926	Feb. 7, 1925	Feb. 6, 1926	Feb. 14, 1925	Feb. 13, 1926
West North Central:												
Minnesota.....	18	31	13	17	8	40	31	35	3	71	38	76
Missouri.....	8	29	5	20	6	42	7	41	5	173	3	71
South Dakota.....	4	3	3	1	-----	-----	6	7	1	0	0	4
Nebraska.....	2	3	3	3	2	2	5	1	30	15	1	9
Kansas.....	2	36	5	72	8	69	8	41	5	86	8	127
Total.....	34	102	29	113	24	153	57	125	44	345	50	287
South Atlantic:												
Delaware.....	1	29	1	17	2	49	3	84	1	66	0	257
Maryland.....	55	690	38	749	17	1,337	58	1,249	66	1,589	92	1,416
District of Columbia.....	21	12	4	19	13	26	6	32	7	24	12	68
North Carolina.....	35	54	19	44	21	122	27	162	13	110	19	290
Total.....	112	785	62	829	53	1,534	94	1,527	87	1,789	123	2,081
East South Central:												
Alabama.....	11	9	20	21	19	10	11	21	43	22	40	53
Arkansas.....	42	0	49	0	53	2	31	1	50	2	27	7
Texas.....	85	2	37	0	66	4	15	9	171	5	173	10
Total.....	138	11	106	21	138	16	57	31	264	29	240	70
Mountain:												
Wyoming.....	2	1	1	4	1	0	1	1	-----	-----	2	2
New Mexico.....	-----	-----	43	5	17	0	13	1	9	5	45	1
Arizona.....	14	0	55	2	53	1	163	1	74	0	19	3
Total.....	16	1	99	11	71	1	177	3	83	5	66	6
Pacific:												
Washington.....	68	15	42	11	69	12	1	16	14	11	4	23
Oregon.....	6	7	6	8	0	13	3	14	2	10	6	20
California.....	32	44	52	38	48	43	41	62	37	58	28	85
Total.....	106	66	100	57	117	68	45	92	53	85	38	128
Grand total.....	1,975	7,503	1,924	7,896	2,111	9,739	2,276	10,749	2,690	12,638	2,993	13,180

## SMALLPOX IN FLORIDA

Surg. John McMullen, who has recently investigated the smallpox situation in Florida, states that official reports to the State health officer to February 15, 1926, showed that practically all parts of the State were having cases of smallpox. The great majority of the cases were mild.

The State health authorities and many of the local health officers, especially in the cities, have done good work in informing the people of the need for vaccination and revaccination and in vaccinating contacts, school children, and other persons, but in some sections of the State this work has met opposition, as the effects of publicity are feared.

Not all of the cases in the State are reported, but the following table shows the number of cases reported to the State health officer from December 1, 1925, to February 10, 1926, inclusive.

*Cases of smallpox reported in Florida December 1, 1925, to February 10, 1926, inclusive, by counties and certain cities*

Location	December, 1925	January, 1926	Feb. 1-10, 1926	Total
State	65	322	170	557
Alachua County		2		2
Bay County		1		1
Brevard County		10		11
Broward County, except Fort Lauderdale			2	2
Fort Lauderdale		1	3	4
Citrus County			1	1
Columbia County		14		14
Dade County, except Miami		2	2	4
Miami	25	82	40	156
Duval County, except Jacksonville			4	4
Jacksonville	13	35	32	80
Escambia County, except Pensacola	1	4		5
Pensacola	1	1		2
Gadsden County		2	1	3
Highlands County	3		2	5
Hillsboro County, except Tampa		10		10
Tampa	13	122	46	181
Jefferson County		1		1
Leon County	1	2		3
Manatee County	1	2	1	4
Marion County		5		5
Orange County, except Orlando	1	7		8
Palm Beach County, except West Palm Beach		3		3
West Palm Beach			20	20
Pasco County		5	1	6
Pinellas County, except St. Petersburg	3	3	1	7
St. Petersburg			2	2
St. Johns County	1			1
St. Lucie County		3		3
Santa Rosa County	2			2
Sarasota County		1		1
Seminole County		1		1
Sumter County			1	1
Union County		1		1
Volusia County		1		1
Levy		1	1	2

### DIVISION OF VENEREAL DISEASES, JULY 1-DECEMBER 31, 1925

The accompanying tables present a statistical report of the medical work of the Division of Venereal Diseases during the six months ended December 31, 1925, summarizing the activities of the venereal-disease clinics and showing the number of cases of venereal diseases reported to the State boards of health during that period.

During the half year, 30,182 cases of syphilis were admitted to the 423 venereal-disease clinics reporting, this disease constituting more than half the total number of cases. The relative proportions of the three diseases were as follows: Syphilis, 55.1 per cent; gonorrhea, 42.3 per cent; chancroid, 2.6 per cent. At these clinics 1,091,056 treatments were given, including 242,788 doses of arsphenamine administered. There were 25,058 patients discharged as noninfectious.

Table 2 shows that 40 States (some reports not for the full period) reported 194,721 cases of syphilis, gonorrhea, and chancroid during the last six months of 1925, the percentages of these diseases being as follows: Syphilis, 53.6 per cent; gonorrhea, 44.7 per cent; chancroid, 1.6 per cent.

TABLE 1.—Summary of reports of venereal disease clinics, including those operating under the joint control of the United States Public Health Service and State boards of health, for the six months, July 1–December 31, 1925<sup>1</sup>

State	Number of clinics reporting	Number of reports received	Patients admitted				Patients discharged as non-infectious	Treatments given	Doses of arsenphenamin given	Wassermann tests made	Microscope examinations (gonococcus)
			Total	Syphilis	Gonorrhea	Chancroid					
United States..	423	2,361	54,753	30,182	23,149	1,423	23,058	1,091,056	242,788	163,096	100,753
Alabama.....	14	84	5,372	3,789	1,424	159	3,282	63,871	23,875	7,748	1,407
Arizona <sup>2</sup> .....	9	51	1,787	1,221	528	38	1,692	37,419	6,779	4,520	1,840
Arkansas.....	12	70	3,241	1,989	1,239	13	473	59,742	24,796	11,260	2,284
California.....	5	30	356	144	206	6	305	9,637	1,294	757	964
Colorado.....	6	36	487	221	253	13	238	9,042	2,423	967	1,056
Connecticut.....	3	17	124	78	36	10	66	1,564	661	195	77
Delaware.....	8	30	692	385	237	70	220	4,724	2,468	1,325	184
Florida <sup>3</sup> .....	6	36	1,566	1,198	354	14	378	19,164	6,859	5,948	444
Georgia.....	26	152	6,885	2,736	3,985	164	2,404	191,393	24,240	27,172	25,460
Idaho <sup>2</sup> .....	19	114	1,996	924	1,013	59	510	80,139	10,621	4,303	1,887
Illinois.....	7	38	478	219	269	—	351	23,608	3,359	862	509
Indiana.....	18	96	2,593	1,308	1,226	59	1,353	24,378	6,555	3,446	1,184
Iowa <sup>4</sup> .....	3	14	1,084	627	436	21	1,016	9,990	4,522	2,064	1,430
Kansas.....	4	23	124	68	61	5	145	3,399	1,217	449	185
Kentucky.....	17	77	1,293	505	711	77	704	25,199	6,179	1,944	1,856
Louisiana.....	14	80	3,717	2,000	1,711	6	468	61,893	9,958	14,867	14,740
Maine.....	4	24	566	255	310	1	399	15,160	4,286	1,351	859
Maryland.....	2	12	210	100	33	17	111	1,693	877	416	205
Massachusetts <sup>5</sup> .....	15	87	1,852	1,293	535	24	397	56,564	5,833	4,320	2,281
Michigan.....	5	30	595	249	338	8	271	16,213	4,320	2,251	3,108
Minnesota.....	4	20	65	36	29	—	24	3,516	848	232	90
Mississippi.....	20	110	1,224	731	496	7	382	25,087	5,832	3,298	1,913
Missouri.....	47	270	2,543	1,717	1,086	40	2,553	64,879	19,766	6,122	3,558
Montana <sup>4</sup> .....	2	9	17	4	13	—	20	217	68	17	102
Nebraska.....	48	268	5,252	2,730	2,377	145	1,634	101,718	19,863	13,988	8,953
Nevada <sup>4</sup> .....	1	6	157	101	56	—	—	2,780	733	350	372
New Hampshire.....	46	268	2,679	1,286	1,351	42	1,979	50,953	13,513	6,043	2,632
New Jersey.....	6	36	321	172	149	—	46	6,546	2,907	2,726	2,288
New Mexico <sup>5</sup> .....	2	6	513	209	298	6	573	7,347	1,249	183	1,709
New York.....	2	8	10	4	6	—	10	245	96	37	48
North Carolina <sup>4</sup> .....	4	17	1,931	1,108	609	214	1,083	26,185	7,413	9,417	2,249
North Dakota.....	4	19	1,456	814	512	180	893	20,345	5,559	3,389	5,576
Ohio.....	1	6	157	101	56	—	—	2,780	733	350	372
Oklahoma <sup>4</sup> .....	46	268	2,679	1,286	1,351	42	1,979	50,953	13,513	6,043	2,632
Oregon.....	6	36	321	172	149	—	46	6,546	2,907	2,726	2,288
Pennsylvania.....	2	6	513	209	298	6	573	7,347	1,249	183	1,709
Rhode Island.....	2	8	10	4	6	—	10	245	96	37	48
South Carolina <sup>7</sup> .....	4	17	1,931	1,108	609	214	1,083	26,185	7,413	9,417	2,249
South Dakota.....	4	19	1,456	814	512	180	893	20,345	5,559	3,389	5,576
Tennessee <sup>8</sup> .....	4	21	33	25	5	—	16	553	346	192	46
Texas.....	8	44	1,077	732	317	28	477	10,940	5,136	5,336	1,671
Utah <sup>1</sup> .....	3	18	524	238	276	10	194	9,127	1,131	3,414	3,801
Vermont.....	12	62	559	539	254	36	238	9,078	3,654	1,565	947
Virginia.....	13	78	774	374	399	1	183	6,762	3,321	5,422	2,835
Washington.....	—	—	—	—	—	—	—	—	—	—	—
West Virginia.....	—	—	—	—	—	—	—	—	—	—	—
Wisconsin.....	—	—	—	—	—	—	—	—	—	—	—
Wyoming <sup>4</sup> .....	—	—	—	—	—	—	—	—	—	—	—

<sup>1</sup> Including correctional and penal institutions.

<sup>2</sup> No clinics.

<sup>3</sup> For five months only.

<sup>4</sup> Not reporting.

<sup>5</sup> Separate report of clinics discontinued.

<sup>6</sup> Clinics discontinued.

<sup>7</sup> For three months only.

<sup>8</sup> For four months only.

TABLE 2.—Cases of venereal diseases reported to State boards of health, July 1—December 31, 1925

State	Total	Syph- ilis	Gonor- rhea	Chan- croid	State	Total	Syph- ilis	Gonor- rhea	Chan- croid
United States.....	194,721	104,431	87,146	3,144	Montana <sup>1</sup> .....	2,193	713	1,452	28
Alabama.....	7,808	4,731	2,861	216	Nebraska.....	191	90	101	—
Arizona <sup>1</sup> .....	2,128	1,333	751	44	Nevada <sup>1</sup> .....	4,519	2,650	1,835	34
Arkansas.....	9,858	5,558	4,088	212	New Hampshire.....	57	11	44	2
California.....	1,119	279	816	24	New Jersey.....	19,579	14,515	5,024	40
Colorado.....	1,190	569	615	6	New Mexico.....	695	167	527	1
Connecticut.....	361	111	208	42	New York.....	5,252	2,730	2,377	145
Delaware.....	3,281	2,121	1,064	96	North Carolina <sup>1</sup> .....	979	240	736	3
Florida.....	6,358	3,082	3,125	151	North Dakota.....	2,679	1,286	1,351	42
Georgia.....	137	29	108	—	Ohio.....	484	208	275	1
Idaho.....	15,860	5,368	10,278	214	Oklahoma <sup>1</sup> .....	4,816	1,917	2,893	6
Illinois.....	2,088	1,008	1,021	59	Oregon.....	352	26	321	5
Iowa <sup>1</sup> .....	863	260	596	7	Pennsylvania.....	2,452	1,318	871	263
Kansas.....	22,655	15,413	7,158	84	Rhode Island.....	18,176	11,847	6,416	413
Kentucky.....	3,488	1,831	1,413	244	South Carolina <sup>1</sup> .....	375	156	219	—
Louisiana.....	501	146	348	7	South Dakota <sup>1</sup> .....	1,272	802	442	28
Maine.....	2,917	1,525	1,335	157	Tennessee.....	978	345	607	26
Maryland.....	3,901	1,044	2,857	—	Texas.....	5,048	3,342	1,599	107
Massachusetts.....	13,010	6,852	6,111	47	Utah <sup>1</sup> .....	1,775	363	1,386	26
Michigan.....	5,718	2,584	3,098	36	Vermont.....	—	—	—	—
Minnesota.....	15,379	6,401	8,978	—	Virginia.....	—	—	—	—
Mississippi.....	4,229	1,960	1,941	328	Washington.....	—	—	—	—
Missouri.....	—	—	—	—	West Virginia.....	—	—	—	—
					Wisconsin.....	—	—	—	—
					Wyoming <sup>1</sup> .....	—	—	—	—

<sup>1</sup> Not reporting.<sup>2</sup> For two months only.<sup>3</sup> For four months only.<sup>4</sup> For five months only.<sup>5</sup> For three months only.

## DEATHS DURING WEEK ENDED FEBRUARY 20, 1926

Summary of information received by telegraph from industrial insurance companies for week ended February 20, 1926, and corresponding week of 1925. (From the Weekly Health Index, February 24, 1926, issued by the Bureau of the Census, Department of Commerce)—

	Week ended Feb. 20, 1926	Corresponding week, 1925
Policies in force.....	61,743,301	58,724,193
Number of death claims.....	14,698	12,992
Death claims per 1,000 policies in force, annual rate.....	12.4	11.5

Deaths from all causes in certain large cities of the United States during the week ended February 20, 1926, infant mortality, annual death rate, and comparison with corresponding week of 1925. (From the Weekly Health Index, February 24, 1926, issued by the Bureau of the Census, Department of Commerce)

City	Week ended Feb. 20, 1926		Annual death rate per 1,000 corresponding week, 1925	Deaths under 1 year		Infant mortality rate, week ended Feb. 20, 1925 <sup>2</sup>
	Total deaths	Death rate <sup>1</sup>		Week ended Feb. 20, 1925	Corresponding week, 1925	
Total (68 cities).....	9, 026	16.4	14.5	1, 054	940	86
Akron.....	57	—	—	7	9	74
Albany.....	61	27.0	19.9	6	7	126
Atlanta.....	120	—	—	13	9	—
White.....	66	—	—	8	—	—
Colored.....	54	( <sup>3</sup> )	—	5	—	—
Baltimore.....	352	23.0	10.8	32	23	93
White.....	257	—	—	12	—	71
Colored.....	95	( <sup>3</sup> )	—	12	—	195
Birmingham.....	91	23.1	24.6	12	13	—
White.....	49	—	—	6	—	—
Colored.....	42	( <sup>3</sup> )	—	6	—	—
Boston.....	260	17.4	17.7	32	35	90
Bridgeport.....	48	—	—	9	5	153
Buffalo.....	182	17.6	11.7	31	20	129
Cambridge.....	24	10.5	16.1	3	5	50
Camden.....	53	21.5	11.3	8	4	135
Chicago.....	797	13.9	13.1	101	98	89
Cincinnati.....	153	19.5	16.7	14	16	87
Cleveland.....	227	12.6	12.0	38	36	98
Columbus.....	72	13.4	12.9	5	5	46
Dallas.....	83	22.4	14.6	9	11	—
White.....	60	—	—	5	—	—
Colored.....	23	( <sup>3</sup> )	—	4	—	—
Dayton.....	35	10.6	16.0	1	5	16
Denver.....	94	17.4	14.7	4	7	—
Des Moines.....	37	12.9	14.7	2	5	33
Detroit.....	343	14.4	12.1	67	57	108
Duluth.....	30	14.2	11.8	3	5	70
El Paso.....	45	22.4	19.4	6	3	—
Eric.....	37	—	—	5	2	95
Fall River.....	29	11.7	18.2	3	6	44
Flint.....	20	8.0	9.2	2	3	33
Fort Worth.....	39	13.3	13.3	4	2	—
White.....	29	—	—	3	—	—
Colored.....	10	( <sup>3</sup> )	—	1	—	—
Grand Rapids.....	32	10.9	10.9	3	7	43
Houston.....	107	33.8	19.3	21	7	—
White.....	65	—	—	13	—	—
Colored.....	42	( <sup>3</sup> )	—	8	—	—
Indianapolis.....	114	16.6	17.4	7	13	51
White.....	105	—	—	6	—	51
Colored.....	9	( <sup>3</sup> )	—	1	—	55
Jacksonville, Fla.....	54	26.8	17.9	4	1	83
White.....	22	—	—	2	—	65
Colored.....	32	( <sup>3</sup> )	—	2	—	114
Kansas City, Kans.....	37	16.6	20.7	5	5	87
White.....	27	—	—	3	—	63
Colored.....	10	( <sup>3</sup> )	—	2	—	263
Kansas City, Mo.....	95	13.5	15.9	17	15	—
Los Angeles.....	324	—	—	25	22	72
Louisville.....	85	14.7	12.9	13	10	112
White.....	69	—	—	12	—	120
Colored.....	25	( <sup>3</sup> )	—	1	—	63
Lowell.....	29	13.7	13.7	3	5	56
Lynn.....	35	17.7	11.6	8	2	201
Memphis.....	86	28.7	20.9	10	14	—
White.....	40	—	—	2	—	—
Colored.....	46	( <sup>3</sup> )	—	8	—	—
Milwaukee.....	131	13.6	12.0	8	18	37
Minneapolis.....	112	12.7	13.4	9	16	50
Nashville.....	62	23.7	16.1	6	8	—
White.....	23	—	—	4	—	—
Colored.....	29	( <sup>3</sup> )	—	2	—	—
New Bedford.....	31	12.5	14.4	4	4	70
New Haven.....	61	17.8	16.6	6	0	82
New Orleans.....	231	23.4	26.4	25	18	—
White.....	135	—	—	11	—	—
Colored.....	98	( <sup>3</sup> )	—	14	—	—

Footnotes at end of table.

Deaths from all causes in certain large cities of the United States during the week ended February 20, 1926, infant mortality, annual death rate, and comparison with corresponding week of 1925. (From the Weekly Health Index, February 24, 1926, issued by the Bureau of the Census, Department of Commerce)—Contd.

City	Week ended Feb. 20, 1926		Annual death rate per 1,000 corresponding week, 1925	Deaths under 1 year		Infant mortality rate, week ended Feb. 20, 1926 <sup>1</sup>
	Total deaths	Death rate <sup>1</sup>		Week ended Feb. 20, 1926	Corresponding week, 1925	
New York.....	1,861	16.5	13.6	208	169	84
Bronx boro.....	228	13.6	11.1	15	19	50
Brooklyn boro.....	632	15.0	12.0	77	60	78
Manhattan boro.....	794	21.3	18.3	95	73	105
Queens boro.....	161	11.7	8.9	17	15	77
Richmond boro.....	46	17.3	13.6	4	2	70
Newark, N. J.....	112	12.9	13.4	19	18	91
Norfolk.....	44			4	3	74
White.....	19			1		30
Colored.....	25	( <sup>2</sup> )		3		149
Oakland.....	63	12.9	11.7	5	2	58
Oklahoma City.....	26			1		63
Omaha.....	70	17.2	11.1	6	5	70
Paterson.....	63	19.5	11.4	4	3	97
Philadelphia.....	688	18.1	16.9	73	70	100
Pittsburgh.....	205	16.9	17.8	30	30	61
Portland, Oreg.....	74	13.7	12.6	6	9	149
Providence.....	81	15.8	13.6	18	8	138
Richmond.....	99	27.7	17.9	11	7	39
White.....	51			2		315
Colored.....	48	( <sup>2</sup> )		9		88
Rochester.....	82	13.5	11.2	11	5	
St. Louis.....	219	13.9	15.6	10	13	41
St. Paul.....	68	14.4	10.8	5	7	97
Salt Lake City <sup>4</sup> .....	28	11.1	15.1	7	6	
San Antonio.....	80	21.1	15.0	13	8	63
San Diego.....	46	22.6	22.6	3	2	78
San Francisco.....	160	15.0	14.6	13	10	87
Schenectady.....	27	15.2	11.8	3	3	46
Seattle.....	72			5	7	52
Somerville.....	23	12.1	13.7	2	3	94
Spokane.....	25	12.0	12.4	4	5	101
Springfield, Mass.....	28	10.3	11.7	7	3	76
Syracuse.....	53	15.2	14.6	6	4	23
Tacoma.....	19	9.5	14.5	1	2	29
Toledo.....	59	10.7	13.1	3	10	117
Trenton.....	43	17.0	17.4	7	7	110
Utica.....	31	15.9	10.8	5	4	125
Washington, D. C.....	237	24.8	16.7	22	3	74
White.....	150			9		237
Colored.....	87	( <sup>2</sup> )		13		107
Waterbury.....	29			5	4	117
Wilmington, Del.....	51	21.8	15.0	5	5	46
Worcester.....	49	13.4	13.1	4	7	67
Yonkers.....	25	11.5	10.1	3	2	102
Youngstown.....	35	11.4	10.8	8	10	

<sup>1</sup> Annual rate per 1,000 population.

<sup>2</sup> Deaths under 1 year per 1,000 births—an annual rate based on deaths under 1 year for the week and estimated births for 1925. Cities left blank are not in the registration area for births.

<sup>3</sup> Data for 63 cities.

<sup>4</sup> Deaths for week ended Friday, Feb. 19, 1926.

<sup>5</sup> In the cities for which deaths are shown by color, the colored population in 1920 constituted the following percentage of the total population: Atlanta 31, Baltimore 15, Birmingham 39, Dallas 15, Fort Worth 14, Houston 25, Kansas City, Kans., 14, Louisville 17, Memphis 38, Nashville 30, New Orleans 26, Norfolk 38, Richmond 32, and Washington, D. C., 25.

# PREVALENCE OF DISEASE

*No health department, State or local, can effectively prevent or control disease without knowledge of when, where, and under what conditions cases are occurring*

## UNITED STATES

### CURRENT WEEKLY STATE REPORTS

These reports are preliminary, and the figures are subject to change when later returns are received by the State health officers

#### Reports for Week Ended February 27, 1926

ALABAMA	Cases	ARKANSAS—continued	Cases
Cerebrospinal meningitis.....	1	Mumps.....	40
Chicken pox.....	81	Ophthalmia neonatorum.....	1
Diphtheria.....	37	Pellagra.....	8
Influenza.....	1,735	Scarlet fever.....	20
Lethargic encephalitis.....	1	Smallpox.....	3
Malaria.....	23	Trachoma.....	2
Measles.....	54	Tuberculosis.....	16
Mumps.....	51	Typhoid fever.....	1
Pellagra.....	38	Whooping cough.....	32
Pneumonia.....	170		
Scarlet fever.....	31	CALIFORNIA	
Smallpox.....	35	Cerebrospinal meningitis:	
Tetanus.....	7	Los Angeles.....	3
Tuberculosis.....	196	Los Angeles County.....	4
Typhoid fever.....	32	Sacramento.....	1
Whooping cough.....	54	Woodland.....	1
		Chicken pox.....	449
ARIZONA		Diphtheria.....	121
Chicken pox.....	25	Influenza.....	383
Diphtheria.....	1	Measles.....	90
Influenza.....	3	Mumps.....	306
Mumps.....	11	Poliomyelitis—Fresno.....	1
Pneumonia.....	2	Scarlet fever.....	155
Scarlet fever.....	7	Smallpox:	
Trachoma.....	1	Los Angeles.....	62
Tuberculosis.....	2	Los Angeles County.....	12
Typhoid fever.....	1	Scattering.....	51
Whooping cough.....	3	Typhoid fever.....	6
		Typhus fever—Los Angeles.....	1
ARKANSAS		Whooping cough.....	53
Chicken pox.....	26		
Diphtheria.....	13	COLORADO	
Hookworm disease.....	23	Chicken pox.....	51
Influenza.....	437	Diphtheria.....	25
Malaria.....	21	Influenza.....	5
Measles.....	4	Measles.....	14

COLORADO—continued		Cases	GEORGIA—continued		Cases
Mumps	.....	1	Tetanus	.....	1
Pneumonia	.....	8	Tuberculosis	.....	33
Scarlet fever	.....	27	Typhoid fever	.....	2
Smallpox	.....	1	Whooping cough	.....	20
Tuberculosis	.....	26			
Vincent's angina	.....	1			
Whooping cough	.....	55			
CONNECTICUT			IDAHO		
Chicken pox	.....	79	Cerebrospinal meningitis:		
Conjunctivitis (infectious)	.....	15	Aberdeen	.....	1
Diphtheria	.....	56	American Falls	.....	1
German measles	.....	22	Lane	.....	1
Influenza	.....	22	Moscow	.....	1
Lethargic encephalitis	.....	1	Chicken pox	.....	10
Measles	.....	535	Diphtheria	.....	3
Mumps	.....	8	Influenza	.....	8
Paratyphoid fever	.....	1	Measles	.....	4
Pneumonia (broncho)	.....	58	Mumps	.....	14
Pneumonia (lobar)	.....	46	Pneumonia	.....	1
Scarlet fever	.....	26	Scarlet fever	.....	17
Septic sore throat	.....	1	Smallpox:		
Tuberculosis (all forms)	.....	39	Mountain Home	.....	17
Whooping cough	.....	77	Scattering	.....	18
DELAWARE			Tuberculosis	.....	1
Chicken pox	.....	7	Whooping cough	.....	1
Diphtheria	.....	3			
Influenza	.....	35			
Malaria	.....	1			
Measles	.....	159			
Pneumonia	.....	13			
Scarlet fever	.....	2			
Smallpox	.....	1			
Tuberculosis	.....	4			
Typhoid fever	.....	1			
Whooping cough	.....	3			
FLORIDA					
Chicken pox	.....	38			
Diphtheria	.....	11			
Influenza	.....	37			
Malaria	.....	1			
Measles	.....	14			
Mumps	.....	31			
Pneumonia	.....	16			
Scarlet fever	.....	12			
Smallpox	.....	174			
Tetanus	.....	1			
Tuberculosis	.....	8			
Typhoid fever	.....	10			
Whooping cough	.....	12			
GEORGIA					
Chicken pox	.....	22			
Diphtheria	.....	8			
Dysentery	.....	1			
Hookworm disease	.....	2			
Influenza	.....	618			
Malaria	.....	10			
Measles	.....	178			
Mumps	.....	33			
Paratyphoid fever	.....	2			
Pneumonia	.....	128			
Scarlet fever	.....	10			
Septic sore throat	.....	1			
Smallpox	.....	15			
			ILLINOIS		
			Diphtheria	.....	120
			Influenza	.....	71
			Lethargic encephalitis:		
			Knox County	.....	1
			Schuyler County	.....	1
			Measles	.....	1,251
			Pneumonia	.....	521
			Poliomyelitis:		
			Christian County	.....	1
			Stark County	.....	1
			Scarlet fever	.....	621
			Smallpox:		
			Cook County	.....	11
			Scattering	.....	23
			Tuberculosis	.....	555
			Typhoid fever	.....	10
			Whooping cough	.....	227
			INDIANA		
			Chicken pox	.....	117
			Diphtheria	.....	58
			Influenza	.....	158
			Measles	.....	2,892
			Mumps	.....	2
			Pneumonia	.....	28
			Poliomyelitis	.....	1
			Scarlet fever	.....	283
			Smallpox	.....	167
			Tuberculosis	.....	44
			Typhoid fever	.....	10
			Whooping cough	.....	167
			IOWA		
			Cerebrospinal meningitis	.....	1
			Chicken pox	.....	53
			Diphtheria	.....	19
			German measles	.....	47
			Measles	.....	67
			Mumps	.....	50
			Pneumonia	.....	26
			Poliomyelitis	.....	2



IOWA—continued		Cases	MASSACHUSETTS		Cases
Scarlet fever.....		58	Cerebrospinal meningitis.....		1
Smallpox:			Chicken pox.....		210
Council Bluffs.....		38	Conjunctivitis (suppurative).....		10
Scattering.....		16	Diphtheria.....		69
Tuberculosis.....		2	German measles.....		208
Whooping cough.....		31	Hookworm disease.....		1
KANSAS			Influenza.....		14
Cerebrospinal meningitis:			Lethargic encephalitis.....		3
Munden.....		1	Measles.....		1,375
Wichita.....		1	Mumps.....		87
Chicken pox.....		54	Ophthalmia neonatorum.....		28
Diphtheria.....		13	Pneumonia (lobar).....		123
Influenza.....		182	Poliomyelitis.....		1
Measles.....		188	Scarlet fever.....		241
Mumps.....		29	Tuberculosis (pulmonary).....		109
Pellagra.....		1	Tuberculosis (other forms).....		25
Pneumonia.....		110	Typhoid fever.....		9
Scarlet fever.....		80	Whooping cough.....		456
Smallpox.....		14	MICHIGAN		
Trachoma.....		2	Diphtheria.....		103
Tuberculosis.....		18	Measles.....		1,884
Whooping cough.....		49	Pneumonia.....		203
LOUISIANA			Scarlet fever.....		332
Diphtheria.....		11	Smallpox.....		7
Influenza.....		1,317	Tuberculosis.....		289
Lethargic encephalitis.....		2	Typhoid fever.....		3
Pneumonia.....		60	Whooping cough.....		367
Scarlet fever.....		18	MINNESOTA		
Smallpox.....		74	Cerebrospinal meningitis.....		2
Tuberculosis.....		42	Chicken pox.....		146
Typhoid fever.....		8	Diphtheria.....		62
Whooping cough.....		11	Influenza.....		2
MAINE			Measles.....		189
Chicken pox.....		11	Pneumonia.....		5
Diphtheria.....		3	Scarlet fever.....		358
German measles.....		3	Smallpox.....		3
Influenza.....		2	Tuberculosis.....		82
Measles.....		86	Typhoid fever.....		5
Mumps.....		14	Whooping cough.....		43
Pneumonia.....		43	MISSISSIPPI		
Scarlet fever.....		35	Diphtheria.....		14
Septic sore throat.....		6	Influenza.....		1,701
Tuberculosis.....		12	Scarlet fever.....		8
Typhoid fever.....		1	Smallpox.....		12
Vincent's angina.....		4	Typhoid fever.....		1
Whooping cough.....		33	MISSOURI		
MARYLAND <sup>1</sup>			Cerebrospinal meningitis.....		3
Cerebrospinal meningitis.....		1	Chicken pox.....		111
Chicken pox.....		92	Diphtheria.....		90
Diphtheria.....		29	Influenza.....		9
Dysentery.....		1	Measles.....		252
German measles.....		1	Mumps.....		52
Influenza.....		526	Ophthalmia neonatorum.....		1
Measles.....		1,332	Pneumonia.....		8
Mumps.....		199	Poliomyelitis.....		2
Pneumonia (broncho).....		113	Rabies (in animals).....		4
Pneumonia (lobar).....		104	Scarlet fever.....		267
Scarlet fever.....		51	Smallpox.....		4
Septic sore throat.....		2	Tetanus.....		1
Smallpox.....		3	Tuberculosis.....		39
Tuberculosis.....		73	Typhoid fever.....		2
Whooping cough.....		48	Whooping cough.....		47

<sup>1</sup> Week ended Friday.

MONTANA		Cases	NORTH CAROLINA		Cases
Chicken pox	16		Chicken pox	283	
Diphtheria	6		Diphtheria	24	
Influenza	3		German measles	163	
German measles	1		Measles	255	
Mumps	1		Poliomyelitis	1	
Smallpox	5		Scarlet fever	30	
Tuberculosis	1		Smallpox	32	
Whooping cough	5		Typhoid fever	2	
			Whooping cough	136	
NEBRASKA			OKLAHOMA		
Chicken pox	42		(Exclusive of Tulsa and Oklahoma City)		
Diphtheria	4		Chicken pox	27	
German measles	2		Diphtheria	11	
Influenza	23		Dysentery	7	
Measles	13		Influenza	1,291	
Mumps	6		Malaria	8	
Pneumonia	1		Measles	13	
Scarlet fever	51		Mumps	20	
Smallpox	42		Pellagra	1	
Tuberculosis	7		Pneumonia	208	
Whooping cough	27		Poliomyelitis—Atoka	1	
			Scarlet fever	57	
NEW JERSEY			Smallpox:		
Cerebrospinal meningitis	2		Caddo	16	
Chicken pox	347		Santering	18	
Diphtheria	68		Typhoid fever	3	
Influenza	44		Whooping cough	11	
Malaria	1		OREGON		
Measles	2,160		Cerebrospinal meningitis	2	
Pneumonia	229		Chicken pox	30	
Scarlet fever	197		Diphtheria	12	
Typhoid fever	6		Influenza	224	
Whooping cough	72		Measles	31	
			Mumps	37	
NEW MEXICO			Pneumonia	19	
Chicken pox	17		Scarlet fever	43	
Diphtheria	18		Smallpox	26	
Influenza	69		Tuberculosis	9	
Measles	6		Typhoid fever	4	
Mumps	14		Whooping cough	56	
Pneumonia	32		PENNSYLVANIA		
Poliomyelitis	1		Cerebrospinal meningitis	1	
Scarlet fever	8		Chicken pox	534	
Tetanus	1		Diphtheria	112	
Tuberculosis	37		German measles	54	
Whooping cough	38		Measles	2,414	
			Mumps	197	
NEW YORK			Pneumonia	83	
(Exclusive of New York City)			Poliomyelitis		
Cerebrospinal meningitis	4		Allentown	1	
Chicken pox	347		Sharon	1	
Diphtheria	59		Scarlet fever	486	
Dysentery	1		Tuberculosis	86	
German measles	219		Typhoid fever	32	
Influenza	270		Whooping cough	335	
Lethargic encephalitis	4		SOUTH DAKOTA		
Measles	1,418		Chicken pox	13	
Mumps	207		Diphtheria	3	
Ophthalmia neonatorum	1		Measles	36	
Pneumonia	356		Mumps	128	
Poliomyelitis	3		Pneumonia	2	
Scarlet fever	292		Scarlet fever	84	
Septic sore throat	6		Typhoid fever	3	
Tetanus	1		Whooping cough	6	
Typhoid fever	10				
Vincent's angina	8				
Whooping cough	474				

<sup>1</sup>Deaths.

TENNESSEE		Cases	WASHINGTON		Cases
Cerebrospinal meningitis—Knoxville	1		Cerebrospinal meningitis—Seattle	2	
Chicken pox	61		Chicken pox	103	
Diphtheria	12		Diphtheria	30	
Influenza	195		German measles	33	
Malaria	3		Measles	10	
Measles	431		Mumps	86	
Mumps	24		Pneumonia	1	
Ophthalmia neonatorum	1		Scarlet fever	87	
Pellagra	4		Tuberculosis	38	
Pneumonia	140		Typhoid fever	2	
Rabies	2		Whooping cough	33	
Scarlet fever	44				
Smallpox	13		WEST VIRGINIA		
Tuberculosis	44		Diphtheria	2	
Typhoid fever	6		Influenza	6	
Whooping cough	14		Typhoid fever	3	
TEXAS			WISCONSIN		
Chicken pox	82		Milwaukee:		
Diphtheria	22		Chicken pox	111	
Influenza	974		Diphtheria	19	
Measles	1		German measles	5	
Mumps	44		Measles	31	
Paratyphoid fever	1		Mumps	40	
Pellagra	2		Pneumonia	18	
Pneumonia	88		Scarlet fever	24	
Scarlet fever	53		Tuberculosis	13	
Smallpox	47		Whooping cough	68	
Tuberculosis	39		Scattering:		
Typhoid fever	1		Cerebrospinal meningitis	3	
Whooping cough	21		Chicken pox	119	
UTAH			Diphtheria	41	
Chicken pox	51		German measles	47	
Diphtheria	11		Influenza	58	
Influenza	12		Measles	402	
Measles	2		Mumps	135	
Mumps	44		Pneumonia	31	
Ophthalmia neonatorum—Farmington	1		Scarlet fever	153	
Pneumonia	4		Smallpox	11	
Scarlet fever	4		Tuberculosis	33	
Smallpox	1		Typhoid fever	3	
Whooping cough	49		Whooping cough	120	
VERMONT			WYOMING		
Chicken pox	34		Chicken pox	9	
Diphtheria	1		German measles	4	
Measles	9		Measles	2	
Mumps	23		Mumps	25	
Scarlet fever	20		Pneumonia	15	
Typhoid fever	2		Scarlet fever	13	
Whooping cough	24		Smallpox	1	
			Tuberculosis	1	
			Whooping cough	11	

## Report for Week Ended February 20, 1926

NORTH DAKOTA		Cases	NORTH DAKOTA—continued		Cases
Chicken pox	35		Pneumonia	22	
Diphtheria	1		Scarlet fever	112	
German measles	83		Smallpox	9	
Lethargic encephalitis	1		Tuberculosis	8	
Measles	12		Typhoid fever	2	
Mumps	53		Whooping cough	14	

## SUMMARY OF MONTHLY REPORTS FROM STATES

The following summary of monthly State reports is published weekly and covers only those States from which reports are received during the current week.

State	Cerebro-spinal meningitis	Diphtheria	Influenza	Malaria	Measles	Pellagra	Polio-myelitis	Scarlet fever	Small-pox	Typhoid fever
<i>January, 1926</i>										
Alabama.....	4	118	941	35	78	37	3	98	157	50
Florida.....	3	72	80	47	20	-----	0	42	322	32
Idaho.....	7	23	501	0	-----	-----	0	63	-----	2
Illinois.....	7	486	146	7	1,825	-----	11	1,847	177	111
Indiana.....	1	189	288	0	-----	-----	4	975	-----	28
Iowa.....	0	86	0	0	642	-----	0	295	158	7
Kansas.....	3	101	105	0	250	-----	2	411	32	11
Maine.....	1	27	29	0	51	-----	4	165	0	11
Maryland.....	2	131	1,936	1	4,380	-----	0	205	0	21
Michigan.....	-----	400	25	0	4,834	-----	1	1,452	89	39
Minnesota.....	2	282	9	0	134	-----	5	1,434	28	12
New York.....	11	1,040	456	3	9,335	-----	14	1,770	5	185
Ohio.....	3	513	37	5	11,997	-----	4	1,655	463	57
Oklahoma <sup>1</sup> .....	5	128	1,992	57	40	17	2	155	73	60
Rhode Island.....	1	69	43	0	2,214	-----	0	52	0	2
Wyoming.....	1	14	23	0	7	-----	0	75	7	0

<sup>1</sup> Inclusive of Tulsa and Oklahoma City.

### Number of Cases of Certain Communicable Diseases Reported for the Month of December, 1925, by State Health Officers

State	Chicken pox	Diphtheria	Measles	Mumps	Scarlet fever	Small-pox	Tuberculosis	Typhoid fever	Whooping cough
Alabama.....	140	117	14	124	74	64	135	70	48
Arizona.....	18	11	3	52	49	0	64	15	-----
Arkansas.....	39	27	6	11	45	11	37	56	37
California.....	1,211	547	131	985	667	278	850	59	295
Colorado.....	199	113	30	5	91	4	178	25	148
Connecticut.....	412	185	787	37	276	0	92	30	224
Delaware.....	19	35	35	-----	17	-----	8	3	25
District of Columbia.....	108	106	27	-----	39	0	81	5	60
Florida.....	81	112	22	61	40	64	174	50	35
Georgia.....	73	93	14	53	30	22	86	61	28
Idaho.....	-----	14	-----	-----	45	-----	-----	1	-----
Illinois.....	1,835	540	868	230	1,755	137	1,941	297	612
Indiana.....	-----	228	-----	-----	918	-----	-----	38	-----
Iowa.....	258	133	77	112	216	90	13	( <sup>1</sup> )	49
Kansas.....	577	95	84	60	233	15	224	30	246
Kentucky <sup>2</sup> .....	-----	-----	-----	-----	-----	-----	-----	-----	-----
Louisiana.....	50	136	8	1	73	121	171	67	24
Maine.....	123	15	13	103	126	0	<sup>3</sup> 20	25	87
Maryland.....	607	139	1,184	358	226	0	226	73	189
Massachusetts.....	1,108	390	5,583	197	988	0	474	34	1,063
Michigan.....	1,018	448	1,215	51	1,385	75	432	103	687
Minnesota.....	629	311	31	-----	1,100	29	263	26	90
Mississippi.....	376	159	1,209	643	88	77	279	130	660
Missouri.....	441	316	50	100	660	37	185	22	87
Montana.....	137	41	12	289	150	27	52	21	64
Nebraska.....	-----	47	-----	-----	178	-----	-----	10	-----
Nevada <sup>4</sup> .....	-----	-----	-----	-----	-----	-----	-----	-----	-----
New Hampshire <sup>4</sup> .....	-----	-----	-----	-----	-----	-----	-----	-----	-----
New Jersey.....	1,564	451	1,896	-----	785	0	330	46	106
New Mexico <sup>5</sup> .....	-----	-----	-----	-----	-----	-----	-----	-----	-----
New York.....	2,916	1,053	7,311	511	1,503	2	1,568	232	1,204
North Carolina.....	509	255	103	-----	245	45	-----	46	221
North Dakota.....	75	28	14	125	281	10	8	7	80
Ohio.....	1,677	617	4,640	65	1,521	246	522	74	729
Oklahoma.....	94	157	16	15	106	39	76	149	76
Oregon.....	121	159	24	131	213	93	86	20	104
Pennsylvania.....	2,984	860	4,387	460	1,967	7	525	149	987
Rhode Island.....	71	117	1,385	7	64	0	36	6	53
South Carolina.....	288	34	20	65	58	127	104	137	-----
South Dakota.....	87	40	10	180	366	11	20	6	44

<sup>1</sup> Report not required by law.

<sup>2</sup> Reports received weekly.

<sup>3</sup> Pulmonary.

<sup>4</sup> Reports received annually.

<sup>5</sup> Report not received at time of going to press.

### Number of Cases of Certain Communicable Diseases Reported for the Month of December, 1925, by State Health Officers—Continued

State	Chick- en pox	Diph- theria	Measles	Mumps	Scarlet fever	Small- pox	Tuber- culosis	Ty- phoid fever	Whoop- ing cough
Tennessee <sup>4</sup>	126	89	108	7	178	27	127	97	51
Texas <sup>5</sup>	-----	-----	-----	-----	-----	-----	-----	-----	-----
Utah	679	174	23	23	110	39	<sup>3</sup> 10	7	172
Vermont	243	18	45	21	53	0	<sup>3</sup> 19	3	161
Virginia	631	324	441	-----	438	34	<sup>3</sup> 109	63	421
Washington	532	92	68	259	384	322	101	17	175
West Virginia	199	129	267	-----	234	3	41	91	89
Wisconsin	1,838	347	747	575	772	55	116	26	642
Wyoming	70	7	2	16	53	25	3	3	15

<sup>3</sup> Pulmonary.<sup>4</sup> Report not received at time of going to press.<sup>6</sup> Reports incomplete.

### Case Rates per 1,000 Population (Annual Basis) for the Month of December, 1925

State	Chick- en pox	Diph- theria	Measles	Mumps	Scarlet fever	Small- pox	Tuber- culosis	Ty- phoid fever	Whoop- ing cough
Alabama	0.67	0.56	0.07	0.59	0.35	0.81	0.64	0.33	0.23
Arizona	.52	.32	.09	1.50	1.42	.00	1.85	.43	-----
Arkansas	.25	.17	.04	.07	.29	.07	.24	.36	.24
California	3.55	1.60	.38	2.88	1.95	.81	2.49	.17	.86
Colorado	2.30	1.31	.35	.06	1.05	.05	2.06	.29	1.71
Connecticut	3.17	1.42	6.05	.28	2.12	.00	.71	.23	1.72
Delaware	.95	1.76	1.76	-----	.85	-----	.40	.15	1.25
District of Columbia	2.55	2.51	.64	-----	2.10	.00	1.92	.12	1.42
Florida	.87	1.21	.24	.66	.43	.69	1.88	.54	.38
Georgia	.28	.36	.05	.20	.12	.08	.33	.23	.11
Idaho	-----	.33	-----	-----	1.08	-----	-----	.02	-----
Illinois	3.10	.91	1.47	.39	2.97	.23	3.28	.50	1.03
Indiana	-----	.88	-----	-----	3.53	-----	-----	.15	-----
Iowa	1.20	.62	.36	.53	1.01	.42	.06	( <sup>1</sup> )	.23
Kansas	3.75	.62	.55	.39	1.51	.10	1.45	.19	1.60
Kentucky <sup>2</sup>	-----	-----	-----	-----	-----	-----	-----	-----	-----
Louisiana	.31	.85	.05	.01	.46	.76	<sup>3</sup> 1.07	.42	.15
Maine	1.85	.23	.20	1.55	1.90	.00	<sup>3</sup> .80	.38	1.31
Maryland	4.65	1.06	9.07	2.74	1.73	.09	1.73	.56	1.45
Massachusetts	3.16	1.11	15.93	.56	2.82	.00	1.35	.10	3.03
Michigan	2.89	1.27	3.44	.14	3.93	.21	1.22	.29	1.95
Minnesota	2.89	1.43	.14	-----	5.33	.13	1.21	.12	.41
Mississippi	2.47	1.05	7.95	4.23	.58	.51	1.83	.91	4.40
Missouri	1.50	1.07	.17	.34	2.24	.13	.63	.07	.30
Montana	2.49	.75	.22	7.08	2.73	.49	.95	.38	1.17
Nebraska	-----	.41	-----	-----	1.35	-----	-----	.09	-----
Nevada <sup>4</sup>	-----	-----	-----	-----	-----	-----	-----	-----	-----
New Hampshire <sup>4</sup>	-----	-----	-----	-----	-----	-----	-----	-----	-----
New Jersey	5.25	1.51	6.37	-----	2.64	.00	1.11	.15	.66
New Mexico <sup>5</sup>	-----	-----	-----	-----	-----	-----	-----	-----	-----
New York	3.09	1.12	7.75	.54	1.59	.00	1.65	.25	1.34
North Carolina	2.17	1.09	.45	-----	1.22	.19	-----	.20	.94
North Dakota	1.29	.48	.24	2.14	4.82	.17	.14	.12	1.37
Ohio	3.12	1.15	8.64	.12	2.83	.46	.97	.14	1.36
Oklahoma	.49	.83	.08	.08	.87	.21	<sup>3</sup> .40	.78	.40
Oregon	1.68	2.21	.33	1.82	2.96	1.29	1.20	.28	1.45
Pennsylvania	3.77	1.12	5.55	.58	2.49	.00	.66	.19	1.25
Rhode Island	1.31	2.15	25.50	.13	1.18	.00	.66	.11	.98
South Carolina	-----	1.91	.23	.13	.43	.38	.84	.60	.91
South Dakota	1.54	.71	.18	3.18	6.47	.19	.35	.11	.78
Tennessee <sup>6</sup>	.61	.43	.52	.03	.86	.13	.62	.47	.25
Texas <sup>5</sup>	-----	-----	-----	-----	-----	-----	-----	-----	-----
Utah	16.23	4.16	.55	.55	2.63	.93	<sup>3</sup> .24	.17	4.11
Vermont	8.12	.60	1.50	.70	1.77	.00	<sup>3</sup> .65	.10	5.38
Virginia	3.03	1.56	2.12	-----	2.11	.16	<sup>3</sup> .52	.30	2.02
Washington	4.24	.73	.54	2.06	3.06	2.56	.80	.14	1.89
West Virginia	1.46	.95	1.96	-----	1.72	.02	.80	.07	.61
Wisconsin	7.73	1.46	3.14	2.42	8.25	.23	.49	.11	2.70
Wyoming	3.72	.37	.11	.85	2.81	1.33	.16	.16	.80

<sup>1</sup> Report not required by law.<sup>2</sup> Reports received weekly.<sup>3</sup> Pulmonary.<sup>4</sup> Reports received annually.<sup>5</sup> Report not received at time of going to press.<sup>6</sup> Reports incomplete.

## RECIPROCAL NOTIFICATIONS

*Notifications regarding communicable diseases sent during the month of December, 1925, to other State health departments by departments of health of certain States*

Referred by—	Diph- theria	Measles	Scarlet fever	Smallpox	Trachoma	Tuber- culosis	Typhoid fever	Whoop- ing cough
Illinois.....	-----	-----	1	7	-----	2	5	-----
Minnesota.....	-----	-----	1	-----	1	90	5	-----
New York.....	2	1	-----	-----	-----	-----	1	-----
Washington.....	-----	-----	-----	-----	-----	-----	-----	1

## PLAGUE-ERADICATIVE MEASURES IN THE UNITED STATES

The following items were taken from the reports of plague-eradicative measures from the cities named:

*Los Angeles, Calif.*

Week ended February 13, 1926:

Number of rats trapped.....	2, 123
Number of rats found to be plague infected.....	0
Number of squirrels examined.....	621
Number of squirrels found to be plague infected.....	0
Number of mice trapped.....	2, 974
Number of mice found to be plague infected.....	0

Date of discovery of last plague-infected rodent, Nov. 6, 1925.

Date of last human case, Jan. 15, 1925.

*Oakland, Calif.*

(Including other East Bay communities)

Week ended February 13, 1926:

Number of rats trapped.....	169
Number of rats found to be plague infected.....	0

Totals:

Number of rats trapped Jan. 1, 1925, to Feb. 13, 1926.....	81, 755
Number of rats found to be plague infected.....	21
Number of squirrels examined May 1 to Aug. 1, 1925.....	7, 277
Number of squirrels found to be plague infected.....	0
Number of mice trapped Jan. 1, 1925, to Feb. 13, 1926.....	32, 220

Date of discovery of last plague-infected rat, Mar. 4, 1925.

Date of last human case, Sept. 10, 1919.

## GENERAL CURRENT SUMMARY AND WEEKLY REPORTS FROM CITIES

*Diphtheria.*—For the week ended February 13, 1926, 35 States reported 1,359 cases of diphtheria. For the week ended February 14, 1925, the same States reported 1,572 cases of this disease. Ninety-seven cities, situated in all parts of the country and having an aggregate population of more than 28,600,000, reported 735 cases of diph-

theria for the week ended February 13, 1926. Last year for the corresponding week they reported 868 cases. The estimated expectancy for these cities was 1,022 cases. The estimated expectancy is based on the experience of the last nine years, excluding epidemics.

*Measles*.—Thirty-two States reported 13,421 cases of measles for the week ended February 13, 1926, and 3,004 cases of this disease for the week ended February 14, 1925. Ninety-seven cities reported 8,077 cases of measles for the week this year and 1,632 cases last year.

*Poliomyelitis*.—The health officers of 38 States reported 16 cases of poliomyelitis for the week ended February 13, 1926. The same States reported 18 cases for the week ended February 14, 1925.

*Scarlet fever*.—Scarlet fever was reported for the week as follows: Thirty-five States—this year, 3,955 cases; last year, 4,300 cases; 97 cities—this year, 1,620 cases; last year, 2,108 cases; estimated expectancy, 1,257 cases.

*Smallpox*.—For the week ended February 13, 1926, 35 States reported 1,088 cases of smallpox. Last year for the corresponding week they reported 1,079 cases. Ninety-seven cities reported smallpox for the week as follows: 1926, 310 cases; 1925, 434 cases; estimated expectancy, 129 cases. Twenty-four deaths from smallpox were reported by these cities for the week this year—22 at Los Angeles, Calif., and 2 at San Francisco, Calif.

*Typhoid fever*.—One hundred and forty-five cases of typhoid fever were reported for the week ended February 13, 1926, by 34 States. For the corresponding week of 1925, the same States reported 223 cases of this disease. Ninety-seven cities reported 36 cases of typhoid fever for the week this year and 63 cases for the corresponding week last year. The estimated expectancy for these cities was 48 cases.

*Influenza and pneumonia*.—Deaths from influenza and pneumonia were reported for the week by 90 cities, with a population of more than 27,900,000, as follows: 1926, 1,273 deaths; 1925, 1,327.

## City reports for week ended February 13, 1926

The "estimated expectancy" given for diphtheria, poliomyelitis, scarlet fever, smallpox, and typhoid fever is the result of an attempt to ascertain from previous occurrence how many cases of the disease under consideration may be expected to occur during a certain week in the absence of epidemics. It is based on reports to the Public Health Service during the past nine years. It is in most instances the median number of cases reported in the corresponding week of the preceding years. When the reports include several epidemics or when for other reasons the median is unsatisfactory, the epidemic periods are excluded and the estimated expectancy is the mean number of cases reported for the week during nonepidemic years.

If reports have not been received for the full nine years, data are used for as many years as possible, but no year earlier than 1917 is included. In obtaining the estimated expectancy, the figures are smoothed when necessary to avoid abrupt deviations from the usual trend. For some of the diseases given in the table the available data were not sufficient to make it practicable to compute the estimated expectancy.

Division, State, and city	Population July 1, 1925, estimated	Chick- en pox, cases re- ported	Diphtheria		Influenza		Meas- les, cases re- ported	Mumps, cases re- ported	Pneu- monia, deaths re- ported
			Cases, esti- mated expec- tancy	Cases re- ported	Cases re- ported	Deaths re- ported			
NEW ENGLAND									
Maine:									
Portland	75,333	2	2	0	1	0	8	3	4
New Hampshire:									
Concord	22,546	0	1	2	0	0	31	0	1
Vermont:									
Barre	10,008		0						
Burlington	24,089	0	1	0	0	0	0	0	1
Massachusetts:									
Boston	779,620	75	65	18	3	3	147	21	29
Fall River	128,993	1	6	5	0	0	34	0	1
Springfield	142,065	20	4	0	1	1	105	0	0
Worcester	190,757	5	5	16	0	0	46	1	5
Rhode Island:									
Pawtucket	69,760	1	1	0	0	0	77	1	4
Providence	267,918	0	12	4	0	0	365	0	2
Connecticut:									
Bridgeport	(1)	4	9	5	2	3	36	0	8
Hartford	160,197	12	8	2	0	0	109	0	7
New Haven	178,927	22	4	0	1	1	35	2	4
MIDDLE ATLANTIC									
New York:									
Buffalo	538,016	19	17	8	0	0	15	1	23
New York	5,873,358	269	219	157	71	20	2,060	32	256
Rochester	316,786	19	8	14	0	1	81	1	5
Syracuse	182,003	56	7	3	0	0	28	27	12
New Jersey:									
Camden	128,642	11	4	4	1	1	21	0	5
Newark	452,513	92	20	8	3	0	388	5	15
Trenton	132,020	8	5	1	9	0	1	0	5
Pennsylvania:									
Philadelphia	1,979,364	217	80	75	3	8	413	17	72
Pittsburgh	631,563		21						
Reading	112,707	13	4	3	0	0	4	1	4
EAST NORTH CENTRAL									
Ohio:									
Cincinnati	409,333	14	9	6	2	2	3	0	10
Cleveland	936,485		32						
Columbus	279,886	15	3	1	0	1	118	0	6
Toledo	287,380	32	7	4	0	0	28	0	4
Indiana:									
Fort Wayne	97,846	6	4	1	0	0	1	0	2
Indianapolis	355,819	20	10	2	0	3	845	3	10
South Bend	80,081	7	1	4	0	0	1	0	2
Terre Haute	71,071	2	1	1	0	0	0	0	4
Illinois:									
Chicago	2,995,230	138	110	65	15	4	99	6	97
Peoria	81,564	5	1	0	0	0	8	14	3
Springfield	63,923	5	2	1	1	1	2	2	3
Michigan:									
Detroit	1,245,824	82	61	41	2	1	1,253	11	42
Flint	130,316	26	7	0	0	0	14	2	4
Grand Rapids	153,698	9	3	5	0	0	13	0	7

<sup>1</sup>No estimate made.



## City reports for week ended February 13, 1926—Continued

Division, State, and city	Population July 1, 1925, estimated	Chick- en pox, cases re-ported	Diphtheria		Influenza		Meas- les, cases re-ported	Mumps, cases re-ported	Pneu- monia, deaths re-ported
			Cases, esti- mated expec- tancy	Cases re-ported	Cases re-ported	Deaths re-ported			
EAST NORTH CENTRAL— continued									
Wisconsin:									
Madison.....	46,385	—	1	—	—	—	—	—	—
Milwaukee.....	509,192	107	17	22	2	2	14	15	12
Racine.....	67,707	11	2	4	0	0	0	2	3
Superior.....	39,671	0	1	0	0	0	1	0	0
WEST NORTH CENTRAL									
Minnesota:									
Duluth.....	110,502	5	2	0	0	0	2	1	5
Minneapolis.....	425,435	77	20	16	0	0	49	4	3
St. Paul.....	246,001	37	15	6	0	0	4	4	6
Iowa:									
Davenport.....	(1)	1	1	3	0	—	0	0	—
Des Moines.....	(1)	0	4	2	0	—	3	0	—
Sioux City.....	(1)	5	2	1	0	—	0	1	—
Waterloo.....	36,771	10	0	0	0	—	11	3	—
Missouri:									
Kansas City.....	367,481	48	9	2	3	2	134	6	9
St. Joseph.....	78,342	2	2	1	0	0	0	0	2
St. Louis.....	821,543	44	48	57	0	—	25	10	—
North Dakota:									
Fargo.....	26,403	1	0	0	0	0	18	15	0
Grand Forks.....	14,811	1	0	0	0	—	1	0	—
South Dakota:									
Aberdeen.....	15,036	1	0	0	0	—	0	89	—
Sioux Falls.....	30,127	—	1	—	—	—	—	—	—
Nebraska:									
Lincoln.....	60,941	3	2	3	0	0	0	1	0
Omaha.....	211,768	6	5	1	0	0	9	0	5
Kansas:									
Topeka.....	55,411	2	2	0	0	0	8	1	2
Wichita.....	88,367	12	3	1	0	0	13	1	5
SOUTH ATLANTIC									
Delaware:									
Wilmington.....	122,049	13	2	7	0	0	188	0	4
Maryland:									
Baltimore.....	796,295	78	30	17	588	20	1,143	143	83
Cumberland.....	33,741	0	1	0	0	0	1	0	0
Frederick.....	12,035	0	0	0	0	0	4	0	2
District of Columbia:									
Washington.....	497,906	53	16	32	12	3	68	0	31
Virginia:									
Lynchburg.....	30,395	19	1	2	0	0	2	1	0
Norfolk.....	(1)	35	2	1	0	0	1	2	3
Richmond.....	186,403	5	4	4	0	5	9	2	32
Roanoke.....	58,208	1	1	1	0	0	20	3	6
West Virginia:									
Charleston.....	49,019	1	1	0	0	0	6	0	2
Huntington.....	63,485	0	1	0	0	0	10	0	2
Wheeling.....	50,208	2	1	1	0	0	2	0	2
North Carolina:									
Raleigh.....	30,371	10	0	0	0	0	2	0	2
Wilmington.....	37,061	10	0	1	0	0	0	1	6
Winston-Salem.....	69,031	—	0	1	0	0	201	—	8
South Carolina:									
Charleston.....	73,125	1	0	0	0	2	0	2	4
Columbia.....	41,225	1	0	1	0	—	0	0	—
Greenville.....	27,311	3	0	0	0	0	0	0	0
Georgia:									
Atlanta.....	(1)	8	3	1	325	2	10	1	19
Brunswick.....	16,809	15	0	0	0	0	0	0	0
Savannah.....	93,134	0	1	1	44	2	0	1	7
Florida:									
St. Petersburg.....	26,847	—	0	—	—	0	—	—	2
Tampa.....	94,743	0	1	2	0	0	0	1	5

<sup>1</sup> No estimate made.

## City reports for week ended February 13, 1926—Continued

Division, State, and city	Population July 1, 1925, estimated	Chicken pox, cases reported	Diphtheria		Influenza		Measles, cases reported	Mumps, cases reported	Pneumonia, deaths reported
			Cases, estimated expectancy	Cases reported	Cases reported	Deaths reported			
EAST SOUTH CENTRAL									
Kentucky:									
Covington.....	58,309	0	2	0	0	0	0	0	2
Louisville.....	305,935	5	7	0	6	1	22	0	12
Tennessee:									
Memphis.....	174,533	15	4	5	0	6	1	1	15
Nashville.....	136,220	0	1	0	0	2	114	0	4
Alabama:									
Birmingham.....	205,670	26	3	0	64	2	4	0	8
Mobile.....	65,955	3	0	2	3	1	0	0	2
Montgomery.....	46,481	3	1	2	4	0	0	15	0
WEST SOUTH CENTRAL									
Arkansas:									
Fort Smith.....	31,643	1	1	1	0	-----	1	1	-----
Little Rock.....	74,216	0	1	3	6	0	0	1	3
Louisiana:									
New Orleans.....	414,493	1	13	6	59	45	1	0	58
Shreveport.....	57,857	15	0	0	0	1	0	1	5
Oklahoma:									
Oklahoma City.....	( <sup>1</sup> )	0	1	1	19	3	0	0	0
Texas:									
Dallas.....	194,450	17	5	10	27	9	1	1	9
Galveston.....	48,375	2	0	0	0	0	0	0	3
Houston.....	164,954	1	2	6	0	2	0	0	15
San Antonio.....	198,669	0	3	1	0	7	0	0	20
MOUNTAIN									
Montana:									
Billings.....	17,971	0	0	0	0	0	5	6	2
Great Falls.....	29,883	8	1	0	0	1	0	8	1
Helena.....	12,037	0	0	0	0	0	0	0	2
Missoula.....	12,668	0	1	0	0	0	0	1	0
Idaho:									
Boise.....	23,042	4	0	0	0	0	0	0	0
Colorado:									
Denver.....	280,911	41	11	14	0	13	4	2	16
Pueblo.....	43,787	2	3	0	0	0	0	0	3
New Mexico:									
Albuquerque.....	21,000	5	0	0	53	3	0	0	3
Arizona:									
Phoenix.....	38,669	1	0	2	2	2	0	0	2
Utah:									
Salt Lake City.....	130,948	33	2	5	0	0	3	19	12
Nevada:									
Reno.....	12,665	0	0	0	0	0	0	0	0
PACIFIC									
Washington:									
Seattle.....	( <sup>1</sup> )	45	7	1	0	-----	15	116	-----
Spokane.....	108,897	10	4	3	0	-----	0	0	-----
Tecoma.....	104,455	3	2	4	0	0	3	3	4
Oregon:									
Portland.....	282,383	15	7	9	10	0	13	10	14
California:									
Los Angeles.....	( <sup>1</sup> )	148	40	34	145	7	8	11	24
Sacramento.....	72,260	3	2	1	2	1	1	2	3
San Francisco.....	557,530	55	24	9	7	2	35	14	

<sup>1</sup> No estimate made.

## City reports for week ended February 13, 1926—Continued

Division, State, and city	Scarlet fever		Smallpox			Tuber- culosis, deaths re- ported	Typhoid fever			Whoop- ing cough, cases re- ported	Deaths, all causes
	Cases, esti- mated expect- ancy	Cases re- ported	Cases, esti- mated expect- ancy	Cases re- ported	Deaths re- ported		Cases, esti- mated expect- ancy	Cases re- ported	Deaths re- ported		
NEW ENGLAND											
Maine:											
Portland.....	3	11	0	0	0	1	1	0	0	7	24
New Hampshire:											
Concord.....	0	0	0	0	0	1	0	0	0	0	9
Vermont:											
Barre.....	0		0				0				
Burlington.....	1	10	0	0	0	1	0	0	0	0	5
Massachusetts:											
Boston.....	60	91	0	0	0	8	1	1	0	149	214
Fall River.....	3	0	0	0	0	3	1	0	0	1	
Springfield.....	9	4	0	0	0	2	0	0	0	4	30
Worcester.....	10	10	0	0	0	2	0	0	0	11	47
Rhode Island:											
Pawtucket.....	1	0	0	0	0	0	0	0	0	8	23
Providence.....	9	5	0	0	0	3	0	0	0	7	73
Connecticut:											
Bridgeport.....	8	17	0	0	0	1	0	0	0	6	42
Hartford.....	6	5	0	0	0	1	0	1	0	4	23
New Haven.....	8	10	0	0	0	2	0	0	0	5	52
MIDDLE ATLANTIC											
New York:											
Buffalo.....	20	29	0	2	0	6	1	2	0	34	145
New York.....	246	149	0	0	0	113	8	2	0	50	1,590
Rochester.....	14	15	0	0	0	3	0	1	0	10	62
Syracuse.....	13	5	0	0	0	0	0	0	0	77	46
New Jersey:											
Camden.....	3	8	0	0	0	2	0	0	0	0	32
Newark.....	24	24	0	0	0	6	0	1	0	15	113
Trenton.....	5	3	0	0	0	2	0	0	0	0	46
Pennsylvania:											
Philadelphia.....	74	95	0	0	0	31	3	4	1	28	564
Pittsburgh.....	31		0				0				
Reading.....	1	15	0	0	0	1	0	1	0	9	33
EAST NORTH CENTRAL											
Ohio:											
Cincinnati.....	12	36	1	0	0	12	0	2	0	45	151
Cleveland.....	31		2				1				
Columbus.....	10	13	1	1	0	8	0	0	1	4	78
Toledo.....	20	4	3	1	0	0	1	1	0	17	82
Indiana:											
Port Wayne.....	4	7	0	0	0	4	0	0	0	0	28
Indianapolis.....	9	16	6	28	0	4	1	0	0	56	111
South Bend.....	3	9	1	3	0	0	0	0	0	3	9
Terre Haute.....	2	4	1	0	0	1	0	0	0	2	18
Illinois:											
Chicago.....	146	166	3	1	0	39	3	3	0	86	674
Peoria.....	5	11	0	2	0	1	0	0	0	12	40
Springfield.....	1	2	0	0	0	0	0	0	0	5	32
Michigan:											
Detroit.....	93	138	4	0	0	19	1	0	0	46	326
Flint.....	8	4	2	0	0	1	0	1	0	22	19
Grand Rapids.....	9	31	0	1	0	1	1	0	0	86	35
Wisconsin:											
Madison.....	3		0				0				
Milwaukee.....	37	26	3	0	0	8	1	0	0	68	118
Racine.....	5	2	2	0	0	0	0	0	0	32	10
Superior.....	2	6	4	0	0	0	0	0	0	0	8
WEST NORTH CENTRAL											
Minnesota:											
Duluth.....	4	35	2	0	0	1	0	0	0	13	24
Minneapolis.....	39	76	15	0	0	5	1	0	0	3	85
St. Paul.....	28	61	6	0	0	4	1	1	1	27	59

1 Pulmonary tuberculosis only.

## City reports for week ended February 13, 1926—Continued

Division, State, and city	Scarlet fever		Smallpox			Tuber- culo- sis, de aths re- ported	Typhoid fever			Whoop- ing cough, cases re- ported	Deaths, all causes
	Cases, es- timated expect- ancy	Cases re- ported	Cases, es- timated expect- ancy	Cases re- ported	Deaths re- ported		Cases, es- timated expect- ancy	Cases re- ported	Deaths re- ported		
WEST NORTH CENTRAL—CON.											
Iowa:											
Davenport	2	6	2	0			0	0		0	
Des Moines	8	3	2	2			0	0		0	
Sioux City	2	2	1	4			0	0		0	
Waterloo	2	2	0	0			0	0		2	
Missouri:											
Kansas City	12	33	2	0	0	6	1	0	0	14	100
St. Joseph	3	7	0	0	0	0	1	0	0	0	20
St. Louis	36	145	4	2	0	8	1	1	1	12	228
North Dakota:											
Fargo	2	4	0	0	0	0	0	0	0	0	7
Grand Forks	1	0	1	0			0	0		2	
South Dakota:											
Aberdeen	1	0	0	0			0	0		0	
Sioux Falls	3		0				0				
Nebraska:											
Lincoln	3	2	0	0	0	0	0	0	0	5	14
Omaha	5	17	7	10	0	5	0	0	0	4	48
Kansas:											
Topeka	1	1	0	0	0	0	0	0	0	5	0
Wichita	4	5	1	0	0	1	0	0	0	2	27
SOUTH ATLANTIC											
Delaware:											
Wilmington	3	1	0	0	0	4	0	0	0	5	27
Maryland:											
Baltimore	46	31	0	0	0	21	2	3	1	37	377
Cumberland	1	0	0	0	0	3	0	0	0	2	10
Frederick	1	0	0	0	0	0	0	0	0	0	4
District of Colum- bia:											
Washington	23	29	2	0	0	15	1	0	0	20	160
Virginia:											
Lynchburg	0	0	0	1	0	1	0	0	0	0	8
Norfolk	1	17	1	0	0	1	1	0	0	4	
Richmond	4	3	0	2	0	6	1	0	0	0	100
Roanoke	1	0	0	0	0	0	0	0	1	0	22
West Virginia:											
Charleston	1	1	1	0	0	1	0	0	0	4	20
Huntington	1	0	1	0	0	0	0	0	0	0	13
Wheeling	1	3	0	0	0	0	1	5	1	1	16
North Carolina:											
Raleigh	0	2	0	0	0	2	0	0	0	0	11
Wilmington	0	0	0	0	0	0	0	0	0	0	16
Winston-Salem	1	1	1	3	0	2	0	0	0		24
South Carolina:											
Charleston	0	0	0	0	0	1	0	0	0	0	28
Columbia	0	0	1	1	0	0	0	0	0	0	
Greenville	0	0	0	0	0	0	0	0	0	4	8
Georgia:											
Atlanta	4	1	2	8	0	5	0	0	0	6	103
Brunswick	0	0	0	0	0	0	0	0	0	0	0
Savannah	0	1	0	0	0	3	1	0	0	0	31
Florida:											
St. Petersburg	1		0		0	2	0		0		20
Tampa	0	1	0	28	0	1	1	0	0	0	44
EAST SOUTH CENTRAL											
Kentucky:											
Covington	1	0	1	0	0	2	0	0	0	0	21
Louisville	5	1	1	0	0	3	1	1	0	3	76
Tennessee:											
Memphis	3	14	3	2	0	4	1	0	0	4	71
Nashville	4	4	1	0	0	0	0	0	0	0	37
Alabama:											
Birmingham	2	3	5	8	0	4	1	1	0	4	69
Mobile	1	0	1	0	0	5	0	0	0	0	19
Montgomery	0	0	0	0	0	0	0	0	0	0	

## City reports for week ended February 13, 1926—Continued

Division, State, and city	Scarlet fever		Smallpox			Typhoid fever				Whoop- ing cough, cases re- ported	Deaths, all causes
	Cases, esti- mated expect- ancy	Cases re- ported	Cases, esti- mated expect- ancy	Cases re- ported	Deaths re- ported	Tuber- culo- sis, deaths re- ported	Cases, esti- mated expect- ancy	Cases re- ported	Deaths re- ported		
WEST SOUTH CEN- TRAL											
Arkansas:											
Fort Smith.....	0	1	0	0			0	0		2	
Little Rock.....	1	5	0	0	0	1	0	0	0	1	
Louisiana:											
New Orleans.....	5	10	2	0	0	18	2	0	0	2	290
Shreveport.....	1	3	3	2	0	0	1	0	0	0	36
Oklahoma:											
Oklahoma City.....	2	4	4	0	0	0	0	0	0	0	29
Texas:											
Dallas.....	2	5	2	2	0	7	1	0	0	26	60
Galveston.....	0	1	1	15	0	0	0	0	0	0	16
Houston.....	1	0	1	7	0	0	0	0	0	1	71
San Antonio.....	1	0	0	0	0	4	1	0	0	0	85
* MOUNTAIN											
Montana:											
Billings.....	1	0	0	0	0	0	0	0	0	2	10
Great Falls.....	2	2	2	1	0	0	0	0	0	10	10
Helena.....	0	3	0	0	0	0	0	0	0	0	11
Missoula.....	1	2	1	0	0	0	0	0	0	2	3
Idaho:											
Boise.....	1	0	1	6	0	0	0	0	0	4	3
Colorado:											
Denver.....	13	11	3	0	0	12	1	0	0	51	105
Pueblo.....	1	2	0	0	0	3	0	0	0	0	13
New Mexico:											
Albuquerque.....	1	4	0	0	0	6	0	0	0	1	22
Arizona:											
Phoenix.....	1	0	0	0	0	6	0	0	0	0	17
Utah:											
Salt Lake City.....	3	4	3	0	0	4	0	0	0	27	65
Nevada:											
Reno.....	1	0	0	1	0	0	0	0	0	0	2
PACIFIC											
Washington:											
Seattle.....	10	37	3	15			0	1		5	
Spokane.....	3	23	6	0			0	0		1	
Tacoma.....	2	1	3	25	0	1	0	0	0	0	24
Oregon:											
Portland.....	6	21	11	7	0	3	0	0	0	4	86
California:											
Los Angeles.....	20	39	4	122	22	21	2	3	0	9	215
Sacramento.....	2	4	1	8	0	1	1	0	0	0	
San Francisco.....	16	11	4	1	2	16	0	1	0	1	160

## City reports for week ended February 13, 1926—Continued

Division, State, and city	Cerebrospinal meningitis		Lethargic encephalitis		Pellagra		Poliomyelitis (infantile paralysis)		
	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases, estimated expectancy	Cases	Deaths
NEW ENGLAND									
Maine:									
Portland.....	0	0	1	1	0	0	0	0	0
Massachusetts:									
Boston.....	0	0	1	0	1	0	0	0	0
MIDDLE ATLANTIC									
New York:									
Buffalo.....	0	1	0	0	0	0	0	0	0
New York.....	3	1	6	5	0	0	1	0	0
Pennsylvania:									
Philadelphia.....	0	0	4	2	0	0	0	0	1
EAST NORTH CENTRAL									
Illinois:									
Chicago.....	1	1	0	0	0	0	0	1	0
Michigan:									
Detroit.....	2	0	0	0	0	0	0	1	0
Grand Rapids.....	0	0	0	1	0	0	0	0	0
Wisconsin:									
Racine.....	1	0	0	0	0	0	0	0	0
WEST NORTH CENTRAL									
Missouri:									
St. Louis.....	1	0	0	0	0	0	1	0	0
Georgia:									
Atlanta.....	0	0	0	0	0	1	0	0	0
EAST SOUTH CENTRAL									
Alabama:									
Birmingham.....	0	0	0	0	3	1	0	0	0
WEST SOUTH CENTRAL									
Louisiana:									
New Orleans.....	0	0	0	0	1	1	0	0	0
Shreveport.....	0	1	0	0	0	1	0	0	0
Texas:									
Dallas.....	0	0	0	0	1	1	0	0	0
San Antonio.....	0	0	0	1	0	0	0	0	0
MOUNTAIN									
Colorado:									
Denver.....	0	0	0	1	0	0	0	0	0
PACIFIC									
Washington:									
Spokane.....	5	0	0	0	0	0	0	0	0
California:									
Los Angeles.....	4	2	0	0	0	0	0	1	0

The following table gives the rates per 100,000 population for 103 cities for the five-week period ended February 13, 1926, compared with those for a like period ended February 14, 1925. The population figures used in computing the rates are approximate estimates as of July 1, 1925, and 1926, respectively, authoritative figures for many of the cities not being available. The 103 cities reporting cases had an estimated aggregate population of nearly 30,000,000 in 1925 and nearly 30,500,000 in 1926. The 96 cities reporting deaths

had more than 29,250,000 estimated population in 1925 and more than 29,750,000 in 1926. The number of cities included in each group and the estimated aggregate populations are shown in a separate table below.

*Summary of weekly reports from cities, January 10 to February 13, 1926—Annual rates per 100,000 population—Compared with rates for the corresponding period of 1925*<sup>1</sup>

## DIPHTHERIA CASE RATES

	Week ended—									
	Jan. 17, 1925	Jan. 16, 1926	Jan. 24, 1925	Jan. 23, 1926	Jan. 31, 1925	Jan. 30, 1926	Feb. 7, 1925	Feb. 6, 1926	Feb. 14, 1925	Feb. 13, 1926
103 cities.....	167	145	159	142	<sup>2</sup> 160	142	<sup>3</sup> 169	<sup>4</sup> 134	<sup>5</sup> 163	<sup>6</sup> 134
New England.....	173	144	165	132	192	118	185	97	237	<sup>8</sup> 123
Middle Atlantic.....	187	151	174	137	155	130	170	129	164	<sup>7</sup> 145
East North Central.....	132	135	121	131	<sup>1</sup> 126	138	136	119	124	<sup>6</sup> 120
West North Central.....	247	253	193	206	243	245	247	<sup>4</sup> 220	251	<sup>4</sup> 170
South Atlantic.....	115	141	144	152	121	116	<sup>3</sup> 145	133	<sup>3</sup> 173	135
East South Central.....	84	67	74	73	89	42	58	42	63	47
West South Central.....	185	120	154	155	141	142	167	138	154	116
Mountain.....	148	127	281	155	129	264	185	127	92	173
Pacific.....	196	81	213	140	279	167	257	189	171	140

## MEASLES CASE RATES

103 cities.....	188	973	204	1,335	<sup>2</sup> 204	1,383	<sup>3</sup> 242	<sup>4</sup> 1,482	<sup>5</sup> 285	<sup>6</sup> 1,543
New England.....	424	2,867	479	2,572	467	2,751	556	2,408	637	<sup>8</sup> 2,358
Middle Atlantic.....	157	845	186	1,088	205	1,185	204	1,347	286	<sup>7</sup> 1,596
East North Central.....	327	1,302	352	2,068	<sup>2</sup> 340	2,058	415	2,152	479	<sup>8</sup> 1,855
West North Central.....	12	127	26	156	20	277	16	<sup>4</sup> 406	28	<sup>4</sup> 549
South Atlantic.....	42	1,356	36	2,477	35	2,280	<sup>3</sup> 46	2,579	<sup>3</sup> 92	3,112
East South Central.....	42	239	68	285	84	394	47	711	68	732
West South Central.....	22	17	13	13	13	26	35	34	48	13
Mountain.....	259	91	240	118	277	100	768	91	148	109
Pacific.....	152	51	52	65	17	73	58	105	28	167

## SCARLET FEVER CASE RATES

103 cities.....	344	285	356	292	<sup>2</sup> 346	287	<sup>3</sup> 397	<sup>4</sup> 298	<sup>5</sup> 335	<sup>6</sup> 294
New England.....	542	381	575	300	515	378	592	402	544	<sup>8</sup> 363
Middle Atlantic.....	292	237	325	237	299	235	372	309	406	<sup>7</sup> 182
East North Central.....	350	321	344	324	<sup>2</sup> 366	300	398	333	371	<sup>8</sup> 361
West North Central.....	731	548	780	669	756	661	844	<sup>4</sup> 749	695	<sup>4</sup> 777
South Atlantic.....	246	186	190	186	175	154	<sup>3</sup> 241	163	<sup>5</sup> 261	171
East South Central.....	168	140	168	202	200	109	30	119	194	114
West South Central.....	110	90	185	69	194	69	154	138	114	108
Mountain.....	518	319	296	373	250	255	324	155	370	218
Pacific.....	174	270	210	256	215	334	246	326	168	310

<sup>1</sup> The figures given in this table are rates per 100,000 population, annual basis, and not the number of cases reported. Populations used are estimated as of July 1, 1925 and 1926, respectively.

<sup>2</sup> Racine, Wis., not included.

<sup>3</sup> Wilmington, Del., not included.

<sup>4</sup> Sioux Falls, S. Dak., not included.

<sup>5</sup> Barre, Vt., Pittsburgh, Pa., Cleveland, Ohio, Madison, Wis., and Sioux Falls, S. Dak., not included.

<sup>6</sup> Barre, Vt., not included.

<sup>7</sup> Pittsburgh, Pa., not included.

<sup>8</sup> Cleveland, Ohio, and Madison, Wis., not included.

Summary of weekly reports from cities, January 10 to February 13, 1926—Annual rates per 100,000 population—Compared with rates for the corresponding period of 1925—Continued

## SMALLPOX CASE RATES

	Week ended—									
	Jan. 17, 1925	Jan. 16, 1926	Jan. 24, 1925	Jan. 23, 1926	Jan. 31, 1925	Jan. 30, 1926	Feb. 7, 1925	Feb. 6, 1926	Feb. 14, 1925	Feb. 13, 1926
103 cities.....	56	47	68	35	265	40	273	447	276	256
New England.....	0	0	0	0	0	0	0	0	0	40
Middle Atlantic.....	10	2	6	0	9	1	2	0	4	71
East North Central.....	37	37	45	33	233	43	36	16	33	227
West North Central.....	187	51	173	36	189	53	141	454	187	432
South Atlantic.....	58	63	35	56	42	58	38	101	92	81
East South Central.....	200	57	220	47	599	21	756	42	620	52
West South Central.....	31	146	31	99	57	125	119	155	132	112
Mountain.....	55	14	92	27	46	13	28	73	157	73
Pacific.....	202	266	199	194	168	203	234	324	210	461

## TYPHOID FEVER CASE RATES

	20	11	17	13	217	8	213	47	212	27
103 cities.....	20	11	17	13	217	8	213	47	212	27
New England.....	24	2	19	9	7	9	29	14	19	65
Middle Atlantic.....	21	16	20	10	19	9	13	3	6	76
East North Central.....	22	8	10	3	210	4	8	3	6	55
West North Central.....	10	4	6	4	12	2	0	16	10	44
South Atlantic.....	19	8	12	8	35	9	16	13	20	15
East South Central.....	16	16	26	5	21	10	11	21	37	10
West South Central.....	66	13	40	151	57	17	22	4	44	0
Mountain.....	0	9	46	0	18	19	28	36	18	0
Pacific.....	6	13	14	16	3	11	17	16	11	13

## INFLUENZA DEATH RATES

	21	23	21	20	222	29	229	435	227	235
96 cities.....	21	23	21	20	222	29	229	435	227	235
New England.....	26	14	10	7	26	17	46	12	26	119
Middle Atlantic.....	18	16	20	14	16	16	24	20	22	716
East North Central.....	14	11	17	3	211	12	12	12	16	211
West North Central.....	2	19	19	10	15	13	19	19	11	44
South Atlantic.....	42	23	21	39	36	36	44	68	52	64
East South Central.....	42	58	58	57	68	73	63	101	58	62
West South Central.....	82	10	57	94	77	151	92	180	116	302
Mountain.....	25	64	9	18	37	73	55	109	55	127
Pacific.....	11	46	11	39	18	78	36	67	4	35

## PNEUMONIA DEATH RATES

	206	211	202	199	2198	163	2124	2106	2112	2114
96 cities.....	206	211	202	199	2198	163	2124	2106	2112	2114
New England.....	151	208	208	210	222	144	204	201	230	154
Middle Atlantic.....	289	236	233	227	229	217	252	213	230	710
East North Central.....	143	153	132	139	2136	136	162	145	158	158
West North Central.....	104	125	117	81	114	103	106	125	133	78
South Atlantic.....	271	270	242	287	238	284	295	344	247	406
East South Central.....	173	285	294	228	273	208	299	249	289	223
West South Central.....	426	354	343	312	218	444	334	387	440	553
Mountain.....	240	328	314	273	305	164	185	228	268	328
Pacific.....	145	167	185	185	193	174	175	185	171	138

<sup>2</sup> Racine, Wis., not included.

<sup>3</sup> Wilmington, Del., not included.

<sup>4</sup> Sioux Falls, S. Dak., not included.

<sup>5</sup> Barre, Vt., Pittsburgh, Pa., Cleveland, Ohio, Madison, Wis., and Sioux Falls, S. Dak., not included.

<sup>6</sup> Barre, Vt., not included.

<sup>7</sup> Pittsburgh, Pa., not included.

<sup>8</sup> Cleveland, Ohio, and Madison, Wis., not included.



*Number of cities included in summary of weekly reports, and aggregate population of cities in each group, approximated as of July 1, 1925 and 1926, respectively*

Group of cities	Number of cities reporting cases	Number of cities reporting deaths	Aggregate population of cities reporting cases		Aggregate population of cities reporting deaths	
			1925	1926	1925	1926
Total.....	103	96	29,944,996	30,473,129	29,251,658	29,764,201
New England.....	12	12	2,176,124	2,206,124	2,176,124	2,206,124
Middle Atlantic.....	10	10	10,346,970	10,476,970	10,346,970	10,476,970
East North Central.....	16	16	7,481,656	7,655,436	7,481,656	7,655,436
West North Central.....	14	11	2,594,962	2,634,862	2,461,380	2,499,086
South Atlantic.....	21	21	2,716,070	2,776,070	2,716,070	2,776,070
East South Central.....	7	7	993,103	1,004,953	993,103	1,004,953
West South Central.....	8	6	1,184,057	1,212,057	1,078,198	1,108,695
Mountain.....	9	9	563,912	572,773	563,912	572,773
Pacific.....	6	4	1,888,142	1,934,084	1,434,245	1,460,144

# FOREIGN AND INSULAR

## THE FAR EAST

*Report for week ended January 30, 1926.*—The following report for the week ended January 30, 1926, was transmitted by the Far Eastern Bureau of the health section of the League of Nations' Secretariat, located at Singapore, to the headquarters at Geneva:

Port	Plague		Cholera		Smallpox	
	Cases	Deaths	Cases	Deaths	Cases	Deaths
Calcutta.....		0		29		40
Bombay.....		0		0	13	7
Madras.....		0		2	4	1
Rangoon.....		2		1	6	0
Karachi.....		0		0	6	3
Negapatam.....		0		5	0	0
Colombo.....	0	0	0	0	1	0
Basra.....	0	0	0	0	3	2
Singapore.....	0	0	0	0	1	1
Port Swettenham.....	0	0	0	0	0	0
Penang.....	0	0	0	0	0	0
Batavia.....	0	0	0	0	0	0
Soerabaya.....	0	0	0	0	3	2
Samarang.....	0	0	0	0	0	0
Belawan Deli.....	0	0	0	0	0	0
Padang (Sumatra).....	0	0	0	0	0	0
Sabang (Rhio).....	0	0	0	0	0	0
Macassar.....	3	3	0	0	0	0
Pontianak (Borneo).....	0	0	0	0	0	0
Sandakan (North Borneo).....	0	0	0	0	0	0
Kuching (Sarawak).....	0	0	0	0	1	0
Timor Dilly.....	0	0	0	0	0	0
Manila.....	0	0	2	0	0	0
Zamboanga.....	0	0	0	0	0	0
Bangkok.....	1	0	31	19	19	0
Saigon and Cholon.....	1	0	0	0	1	0
Haiphong.....	0	0	0	0	0	0
Hongkong.....	0	0	0	0	1	0
Shanghai.....	0	0	0	0		10
Amoy.....	0	0	0	0	1	0
Nagasaki.....	0	0	0	0	0	0
Yokohama.....	0	0	0	0	0	0
Simonoseki.....	0	0	0	0	0	0
Moji.....	0	0	0	0	0	0
Kobe.....	0	0	0	0	0	0
Osaka.....	0	0	0	0	0	0
Niigata.....	0	0	0	0	0	0
Tsuruga.....	0	0	0	0	0	0
Hakodate.....	0	0	0	0	0	0
Keelung.....	0	0	0	0	0	0
Fusan.....	0	0	0	0	0	0
Dairen.....	0	0	0	0	2	0
A delalide.....	0	0	0	0	0	0
Brisbane.....	0	0	0	0	0	0
Fremantle.....	0	0	0	0	0	0
Melbourne.....	0	0	0	0	0	0
Sydney.....	0	0	0	0	0	0
Rockhampton.....	0	0	0	0	0	0
Townsville.....	0	0	0	0	0	0
Port Darwin.....	0	0	0	0	0	0
Broome.....	0	0	0	0	0	0
Port Moresby.....	0	0	0	0	0	0
Auckland.....	0	0	0	0	0	0
Wellington.....	0	0	0	0	0	0
Christchurch.....	0	0	0	0	0	0
Invercargill.....	0	0	0	0	0	0

Port	Plague		Cholera		Smallpox	
	Cases	Deaths	Cases	Deaths	Cases	Deaths
Honolulu.....	0	0	0	0	0	0
Suez.....	0	0	0	0	0	0
Alexandria.....	0	0	0	0	0	0
Port Said.....	0	0	0	0	0	0
Mombasa (Kenya).....	0	0	0	0	0	0
Massowah.....	0	0	0	0	0	0
Djibuti.....	0	0	0	0	0	0
Mozambique.....	0	0	0	0	2	0
Lourenco Marques.....	0	0	0	0	0	0
Durban.....	0	0	0	0	0	0
East London.....	0	0	0	0	0	0
Port Elizabeth.....	0	0	0	0	0	0
Cape Town.....	0	0	0	0	0	0
Port-Louis (Mauritius).....	0	0	0	0	0	0
Seychelles.....	0	0	0	0	0	0

## CANADA

*Communicable diseases—Week ended February 13, 1926.*—The Canadian Ministry of Health reports certain communicable diseases in seven provinces of Canada for the week ended February 13, 1926, as follows:

	Nova Scotia	New Brunswick	Quebec	Ontario	Manitoba	Saskatchewan	Alberta	Total
Influenza.....	32							32
Poliomyelitis.....					1			1
Smallpox.....				13	2	8	3	26
Typhoid fever.....			6	9		3	1	19

ESTHONIA<sup>1</sup>

*Communicable diseases—November, December, 1925.*—Communicable diseases were reported in the Republic of Esthonia for the months of November and December, 1925, as follows:

Disease	Cases reported	
	November, 1925	December, 1925
Cerebrospinal meningitis.....		2
Diphtheria.....	59	51
Leprosy.....	1	5
Measles.....	2	4
Paratyphoid fever.....	6	1
Scarlet fever.....	89	190
Smallpox.....	3	
Tuberculosis.....	125	155
Typhoid fever.....	57	58

Population, census, 1,107,059.

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## FINLAND

*Communicable diseases—December, 1925.*—During the month of December, 1925, 53 cases of communicable diseases were reported in the Republic of Finland, of which 6 were diphtheria, 2 paratyphoid fever, and 45 scarlet fever.

## GREAT BRITAIN

*Disease prevalence—Bristol, England—1924 and 1925.*—During the years 1924 and 1925 disease prevalence in Bristol, England, was reported as follows:

Disease	1925		1924	
	Cases	Deaths	Cases	Deaths
Bronchitis.....		425		393
Cerebrospinal meningitis.....	2		3	
Diphtheria.....	1,138	74	979	63
Dysentery.....	6		32	
Influenza.....		114		210
Lethargic encephalitis.....	65		162	
Malaria.....	12		12	
Measles.....		261		15
Ophthalmia neonatorum.....	57		89	
Pneumonia.....		433		412
Polioomyelitis.....	6		9	
Scarlet fever.....	1,500	28	831	8
Tuberculosis (all forms).....		458		447
Typhoid fever.....	31		42	
Whooping cough.....		75		8

<sup>1</sup> Population, estimated, 386,200.

*Mortality from cancer and organic diseases of the heart.*—During the years 1924 and 1925 mortality from cancer and organic diseases of the heart was reported at Bristol, England, as follows: 1924—cancer, 519 deaths; diseases of the heart, 543 deaths; 1925—cancer, 548 deaths; diseases of the heart, 556 deaths.

## HAWAII TERRITORY

*Plague-infected rat—Paauilo (vicinity)—January 29, 1926.*—A plague-infected rat was reported found in the vicinity of Paauilo village, Hawaii, January 29, 1926.

## INDIA

*Improved health conditions—Bombay.*—The advanced summary of vital statistics for Bombay, India, for the year 1925, published in the Times of India, shows that in 1925 Bombay had its lowest death rate since the year 1874, viz, 25.38 per thousand of the population. The disappearance of cholera and plague was stated to have produced a decline in the death rate since 1900, with only one large increase due to the world-wide epidemic of influenza. There was a similar improvement noted in the infant mortality figures for 1925, which

showed that there were 2,000 fewer deaths of infants during that year than in the preceding year. Plague prevention through the destruction of rats, cholera prevention by sterilization of water, and infant-welfare work are noted as among the chief causes of the decrease in the city death rate.

*Rat destruction.*—It was stated that the killing of rats at Bombay had been at the rate of 2,000 a day for the past 20 years, with a total, estimated, of 14,000,000 rats destroyed.

*Other contributory measures.*—Among these are stated improved housing and sanitation, destruction of slums, infant-welfare centers, maternity homes, institution of the antituberculosis league, establishment of tuberculosis sanatoria, and general spread of education.

*Proposed hospital extension.*—Information dated January 9, 1926, shows that extension of hospital facilities at Bombay is being brought to the attention of the public through the press and through the efforts of a committee organized to consider the needs of the public in connection with hospital relief. It was estimated that the number of beds available for the general public at Bombay is 2,056, and that the minimum number of beds provided should be 4,000, giving a ratio of 3.8 beds per 1,000 of the population. Prior to 1907 the only public hospitals—seven in number—were Government maintained. It is proposed to inaugurate a yearly "Hospital Day" to be devoted to the collection of funds to inaugurate and maintain the proposed extension.

### LATVIA

*Communicable diseases—December, 1925.*—During the month of December, 1925, communicable diseases were reported in the Republic of Latvia as follows:

Disease	Cases	Disease	Cases
Cerebrospinal meningitis.....	7	Rabies.....	1
Diphtheria.....	54	Scarlet fever.....	336
Dysentery.....	1	Smallpox.....	3
Leprosy.....	1	Typhoid fever.....	45
Measles.....	258	Typhus fever.....	10
Mumps.....	35	Whooping cough.....	34
Puerperal septicemia.....	3		

### MEXICO

*Street paving and sewer construction—Torreon and Gomez Palacio.*—Information dated February 4, 1926, shows that street paving and sewer construction are being carried out at Torreon, State of Durango, Mexico, and that similar measures are under consideration for the town of Gomez Palacio, situated on the Nazas River and nearly opposite Torreon.

## UNION OF SOUTH AFRICA

*Typhus fever—December, 1925.*—During the month of December, 1925, 78 cases of typhus fever with 9 deaths were reported in the Union of South Africa. Of these, 73 cases with 9 deaths occurred among the colored population and 5 cases among the European population. For distribution according to locality, see page 453.

## VIRGIN ISLANDS

*Communicable diseases—January, 1926.*—Communicable diseases have been reported in the Virgin Islands of the United States for the month of January, 1926, as follows:

Island and disease	Cases	Remarks
St. Thomas and St. John:		
Chancroid.....	2	
Dengue.....	4	
Gonorrhea.....	2	1, St. Croix.
Malaria.....	1	Falciparum.
Sprue.....	1	
St. Croix:		
Dysentery.....	1	Entamebic.
Filariasis.....	1	Bancrofti.
Gonorrhea.....	2	
Tuberculosis.....	2	Chronic pulmonary.

## CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER

The reports contained in the following tables must not be considered as complete or final as regards either the lists of countries included or the figures for the particular countries for which reports are given.

Reports Received During Week Ended March 5, 1926 <sup>1</sup>

## CHOLERA

Place	Date	Cases	Deaths	Remarks
India.....				
Calcutta.....	Jan. 3-9.....	12	11	Dec. 13-19, 1925: Cases, 2,944; deaths, 1,661.
Indo-China:				
Saigon.....	Jan. 4-10.....	1	1	Including 100 kilometers of surrounding country.
Philippine Islands:				
Manila.....	Jan. 12-18.....	4	10	
Provinces—				
Bataan.....	Dec. 13-26.....	5	6	
Bulacan.....	Dec. 13-31.....	21	19	
Pampanga.....	Dec. 20-31.....	11	10	
Siam:				
Bangkok.....	Jan. 3-9.....	36	30	

## PLAGUE

Brazil:				
Bahia.....	Dec. 21-27.....	1	1	
China:				
Nanking.....	Jan. 3-23.....			Prevalent.
Hawaii Territory:				
Pasaulo.....				Jan. 29, 1926: Plague-infected rat found in vicinity.
India.....				Dec. 13-19, 1925: Cases, 1,941; deaths, 1,429.
Rangoon.....	Dec. 27-Jan. 9.....	4	3	
Java:				
Batavia.....	Jan. 2-8.....	26	26	
Soerabaya.....	Dec. 20-26.....	7	7	
Siam:				
Bangkok.....	Jan. 3-9.....	1		

<sup>1</sup> From medical officers of the Public Health Service. American consuls

# CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued

## Reports Received During Week Ended March 5, 1926—Continued

### SMALLPOX

Place	Date	Cases	Deaths	Remarks
Brazil:				
Para.....	Jan. 10-30.....	25	5	
China:				
Amoy.....	Jan. 10-16.....			Present.
Chungking.....	do.....			Do.
Manchuria—				
Harbin.....	Jan. 1-7.....	1		
Nanking.....	Jan. 3-9.....			Prevalent.
Esthonia.....				November, 1925: Cases, 3.
Great Britain:				
England and Wales.....	Jan. 24-30.....	365		
Newcastle-on-Tyne.....	Jan. 24-30.....	2		
India:				
Calcutta.....	Jan. 3-9.....	18	10	Dec. 13-19, 1925: Cases, 2,887; deaths, 762.
Karachi.....	Jan. 10-16.....	2	2	
Rangoon.....	Dec. 27-Jan. 9.....	8	1	
Indo-China:				
Saigon.....	Jan. 1-10.....	1		Including 100 kilometers of surrounding country.
Italy:				
Genoa.....	Jan. 21-31.....	2		
Java:				
Soerabaya.....	Dec. 20-26.....	52	16	
Latvia.....				December, 1925: Cases, 3.
Mexico:				
Mexico City.....	Jan. 31-Feb. 6.....	1		Including municipalities in Federal district.
Tampico.....	Feb. 1-10.....	2		Variceloid.
Peru:				
Arequipa.....	December.....		1	
Poland.....				Nov. 22-28, 1925: One case.
Siam:				
Bangkok.....	Jan. 3-9.....	2	1	
Union of South Africa:				
Germiston district.....	Jan. 2-9.....			Outbreaks.

### TYPHUS FEVER

Mexico:				
Mexico City.....	Jan. 31-Feb. 6.....	2		Including municipalities in Federal district.
Peru:				
Arequipa.....	December.....		1	
Union of South Africa:				
Cape Province.....				December, 1925: Cases, 78; deaths, 9. Colored—cases, 73; deaths, 9. European, 5 cases.
Do.....	Jan. 3-9.....			Dec. 1-31, 1925: Cases, 47; deaths, 8.
Natal—				Outbreaks. In Queenstown district, on farms; and in two native locations.
Durban.....	do.....			Municipality. Outbreaks.
Orange Free State.....				Dec. 1-31, 1925: Cases, 8; 1 death.
Transvaal.....				Dec. 1-31, 1925: Cases, 18.

# CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued

Reports Received from December 26, 1925, to February 26, 1926 <sup>1</sup>

## CHOLERA

Place	Date	Cases	Deaths	Remarks
India.....				Oct. 18-Dec. 12, 1925: Cases, 15,753; deaths, 9,254.
Calcutta.....	Nov. 1-23.....	101	89	
Do.....	Dec. 6-Jan. 2.....	51	63	
Madras.....	Nov. 15-Jan. 2.....	174	70	
Do.....	Jan. 3-16.....	26	22	
Rangoon.....	Nov. 8-Dec. 5.....	4	4	
Indo-China.....				September, 1925: Cases, 9; deaths 5. September, 1924: Cases, 7; deaths, 4. (European cases, 2.)
Provinces—				September, 1924: None.
Annam.....	Sept. 1-30.....	2	2	
Cochin China.....	do.....	5	3	
Tonkin.....	do.....	2		September, 1924: 1 case; 1 death.
Japan.....	Aug. 30-Oct. 17.....	409		September, 1924: None.
Philippine Islands:				
Manila.....	Nov. 9-Dec. 5.....	8	6	
Do.....	Dec. 14-Jan. 3.....	7	4	
Do.....	Jan. 4-10.....	1	7	
Provinces—				
Batman.....	Nov. 30-Dec. 13.....	10	8	
Bulacan.....	Oct. 18-Nov. 7.....	92	64	
Do.....	Nov. 23-Dec. 13.....	179	69	
Laguna.....	Nov. 23-Dec. 26.....	18	14	
Nueva Ecija.....	do.....	6	2	
Pampanga.....	Nov. 1-7.....	1	1	
Do.....	Nov. 23-Dec. 19.....	102	75	
Rizal.....	Sept. 27-Nov. 21.....	75	21	
Romblon.....	Dec. 7-13.....	23	12	
Russia.....	May-June.....	7		
Do.....	July-August.....	4		
Siam:				
Bangkok.....	Oct. 4-Nov. 14.....	108	68	
Do.....	Nov. 22-Dec. 26.....	270	149	
Do.....	Dec. 27-Jan. 2.....	23	14	
On vessel:				
Steamship.....	Oct. 3.....	9		Arrived at Bangkok, Siam; cases in coolie passengers.

## PLAGUE

Argentina.....				Jan. 21-30, 1926: Six cases, occurring in interior provinces of Salta and Santa Fe.
Brazil:				
Bahia.....	Nov. 8-14.....	2		
Do.....	Dec. 27-Jan. 2.....	1	1	
Santos.....	Dec. 8-21.....		2	
British East Africa:				
Kenya—				
Kisumu.....	Nov. 22-Dec. 5.....	1	2	
Uganda Protectorate.....	Sept.-Oct.....	256	233	
Canary Islands:				
La Laguna.....	Dec. 24.....	3	2	
Las Palmas.....	do.....	1		
Do.....	Jan. 7.....	1	1	
Santa Cruz de Tenerife.....	Dec. 18-27.....	3		
Ceylon:				
Colombo.....	Nov. 15-Dec. 5.....	3	3	1 plague rodent
Do.....	Dec. 27-Jan. 2.....	1	1	
China:				
Nanking.....	Nov. 15-Jan. 2.....			Prevalent.
Colombia:				
Buenaventura.....				Feb. 12, 1926: Plague-infected rat.
Ecuador:				
Eloy Alfaro.....	Jan. 1-15.....	1		
Guayaquil.....	Nov. 1-Dec. 31.....	31	12	
Do.....	Jan. 1-15.....	15	5	
Recreo (country estate).....	do.....	1		Rats taken, Nov. 1-Dec. 31, 1925: 49,570; rats found infected, 281. Rats taken, Jan. 1-15, 1926: 11,884; rats found infected, 80.
Egypt.....				Jan. 1-Dec. 9, 1925: Cases, 138. Corresponding period, 1924: Cases, 365.
Beni Suef.....	Nov. 18.....	1	1	
Fayoum Province.....	Dec. 3-9.....	1	1	

<sup>1</sup> From medical offices of the Public Health Service, American consuls, and other sources.



# CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued

Reports Received from December 26, 1925, to February 26, 1926—Continued

## PLAGUE—Continued

Place	Date	Cases	Deaths	Remarks
Greece:				
Athens.....	Nov. 1-30.....	18	4	Including Piræus.
Patras.....	Nov. 13-Dec. 12.....	4	1	
India:				Oct. 18-Dec. 12, 1925: Cases, 9,963; deaths, 6,900.
Bombay.....	Dec. 6-12.....	1	1	
Do.....	Jan. 3-9.....	2	2	
Calcutta.....	Dec. 6-12.....	1	1	
Karachi.....	Nov. 1-Dec. 19.....	4	3	
Madras.....	Oct. 25-Nov. 7.....	75	41	
Do.....	Nov. 15-21.....	35	22	
Rangoon.....	Oct. 25-Dec. 26.....	23	15	
Indo-China:				September, 1925: Cases, 17; deaths, 16. September, 1924: Cases, fatal, 12.
Province—				September, 1924: Cases, 9; deaths, 9.
Cambodia.....	Sept. 1-30.....	11	11	September, 1924: 1 case, 1 death.
Cochin China.....	Sept.-Oct.....	14	12	
Iraq:				
Bagdad.....	Dec. 13-Jan. 2.....	7	3	
Java:				Province.
Batavia.....	Oct. 24-Nov. 6.....	94	89	
Do.....	Nov. 14-Jan. 1.....	311	297	
Cheibou.....	Sept. 27-Oct. 17.....	166	166	
Do.....	Nov. 15-28.....	59	59	
Djokjakarta.....	Oct. 20-Nov. 9.....	—	—	Epidemic in 1 locality.
Kediri.....	Dec. 7.....	—	—	Do.
Pekalongan.....	Sept. 27-Oct. 17.....	—	42	
Do.....	Nov. 8-28.....	—	80	
Rembang.....	Oct. 20.....	—	—	Do.
Soerabaya.....	Oct. 11-Dec. 19.....	52	52	
Tegal.....	Sept. 27-Oct. 17.....	6	6	
Do.....	Nov. 8-28.....	—	14	
Madagascar:				Nov. 1-30, 1925: Cases, 232; deaths, 220.
Province—				
Itasy.....	Sept. 16-Oct. 31.....	20	20	
Do.....	Nov. 16-30.....	13	13	
Moramanga.....	Sept. 16-Nov. 30.....	25	25	
Tananarive.....	Sept. 16-Oct. 31.....	174	159	
Town—				
Fort Dauphin.....	Sept. 16-Nov. 30.....	6	3	
Tamatave (port).....	Sept. 16-30.....	3	2	
Do.....	Oct. 16-Nov. 30.....	9	9	
Tananarive.....	Sept. 16-30.....	2	2	
Do.....	Nov. 1-30.....	11	11	
Other localities.....	do.....	194	182	
Mauritius Island.....	Sept. 20-Nov. 30.....	11	10	
Pamplemousses.....	Oct. 1-Nov. 30.....	3	2	
Port Louis.....	do.....	4	1	
Rivière du Rempart.....	do.....	2	—	
Netherlands India:				
Celebes Island—				
Macassar.....	Dec. 12.....	—	—	Epidemic.
Nigeria.....	August-September.....	349	267	
Peru:				Port 60 miles north of Callao. In hospital. Some cases in province. 12 or 15 cases reported unofficially.
Huacho.....	Jan. 26.....	15	—	
Lima.....	Jan. 1-31.....	20	—	
Mollendo.....	do.....	—	—	
Russia.....	May-June.....	67	—	
Do.....	July-August.....	139	—	
Senegal.....	September-October.....	45	25	
Siam.....	Aug. 23-Oct. 13.....	50	40	
Bangkok.....	Nov. 15-28.....	3	3	
Straits Settlements:				
Singapore.....	Nov. 1-Dec. 5.....	8	8	
Syria:				
Beirut.....	Nov. 11-20.....	1	—	
Union of South Africa:				
Cape Province—				
Kimberley district.....	Dec. 13-19.....	1	—	European.
Middleburg district.....	Dec. 6-12.....	1	—	Native. On farm.
Steynsburg district.....	Nov. 15-21.....	1	—	
Orange Free State—				
Boshof district.....	Nov. 29-Dec. 5.....	1	1	In native.
Bothaville district.....	Dec. 6-12.....	1	1	Native. On farm.

# CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued

Reports Received from December 26, 1925, to February 26, 1926—Continued

## SMALLPOX

Place	Date	Cases	Deaths	Remarks
Algeria:				
Algiers.....	Nov. 21-Dec. 31.....	177		
Do.....	Jan. 1-10.....	64		
Arabia:				
Aden.....	Nov. 29-Dec. 5.....	1		Imported.
Do.....	Jan. 10-18.....	2	1	
Argentina:				
Rosario.....	October.....		1	
Australia:				
Queensland—				
Brisbane.....	Dec. 9-15.....	1		
Brazil:				
Rio de Janeiro.....	Nov. 1-28.....	134	72	
Do.....	Dec. 6-26.....	65	26	
British East Africa:				
Kenya.....				
Mombasa.....	Nov. 15-Dec. 19.....	14	6	
Uganda Protectorate.....	Sept. 1-Oct. 31.....	8	4	
British South Africa:				
Southern Rhodesia.....	Nov. 13-Dec. 23.....	3		
Canada.....				Sept. 13-Jan. 2: In 7 Provinces, 186 cases. Jan. 3-23, 1926, cases, 115. Jan. 31-Feb. 6, 1926, cases, 33.
Alberta.....	Jan. 10-Feb. 6.....	23		From Drumheller, vicinity of Calgary.
Calgary.....	Dec. 13-19.....	1		
British Columbia—				
Vancouver.....	Jan. 4-10.....	1		
Manitoba.....	Jan. 3-Feb. 6.....	20		
Winnipeg.....	Dec. 13-19.....	2		
Do.....	Jan. 3-Feb. 6.....	9		
New Brunswick—				
Northumberland.....	Dec. 6-13.....	1		
Ontario.....	December, 1925.....	32	1	
Do.....	Jan. 1-Feb. 6.....	90		
Admaston.....	Jan. 1-31.....	11		
Ottawa.....	Dec. 6-12.....	2		
Do.....	Jan. 3-Feb. 6.....	2		
Toronto.....	Dec. 27-Jan. 2.....	1		
Do.....	Jan. 3-23.....	21		
Trenton.....	Jan. 1-31.....	7		
Saskatchewan.....	Jan. 3-Feb. 6.....	31		
Moose Jaw.....	do.....	2		
Regina.....	Jan. 24-30.....	1		
Ceylon:				
Colombo.....	Dec. 6-12.....	1		Port case.
Do.....	Jan. 3-9.....	2		Do.
China:				
Amoy.....	Oct. 25-Dec. 19.....		1	
Antung.....	Dec. 7-20.....	2		
Chungking.....	Nov. 15-Jan. 9.....			Present.
Foochow.....	Nov. 1-Jan. 9.....			Do.
Hankow.....	Nov. 14-Dec. 26.....	4		
Do.....	Jan. 10-16.....	1		
Hongkong.....	Nov. 22-Dec. 26.....	4		
Manchuria—				
An-shan.....	Dec. 6-12.....	1		
Do.....	Jan. 10-16.....	1		South Manchurian Railway
Changchun.....	do.....	1		Do.
Dairen.....	Oct. 19-Dec. 27.....	73	15	
Do.....	Dec. 23-Jan. 3.....	11	2	
Kai-yan.....	Jan. 10-16.....	2		Do.
Mukden.....	Oct. 24-Nov. 15.....	1		
Tieh-ling.....	do.....	2		
Nanking.....	Nov. 21-Dec. 26.....			Do.
Do.....	Dec. 27-Jan. 2.....			Do.
Shanghai.....	Oct. 25-Jan. 2.....	37	36	
Do.....	Jan. 3-9.....	9	16	Cases, foreign.
Swatow.....	Nov. 22-Jan. 16.....			Prevalent.
Tientsin.....	Nov. 1-Dec. 19.....	2		
Egypt:				
Alexandria.....	Dec. 3-31.....	5	2	
Do.....	Jan. 8-14.....	2	1	
France.....				September, October, 1925: Cases, 91.
Gold Coast.....	September, 1925.....	14	4	

# CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued

Reports Received from December 26, 1925, to February 26, 1926—Continued

## SMALLPOX—Continued

Place	Date	Cases	Deaths	Remarks
Great Britain—				
England and Wales—				Nov. 15–Dec. 26, 1925: Cases, 790.
Hull—	Dec. 27–Jan. 23—	29		Dec. 27–Jan. 23, 1926: Cases, 1,161.
Leeds—	Jan. 14–23—	2		
Newcastle-on-Tyne—	Nov. 29–Dec. 19—	6		
Do—	Dec. 27–Jan. 23—	8		
Nottingham—	Nov. 22–Dec. 26—	9		
Do—	Dec. 27–Jan. 9—	2		
Sheffield—	Nov. 22–Dec. 12—	7		
Do—	Dec. 20–26—	3		
Do—	Dec. 27–Jan. 23—	10		
Greece—				Oct. 1–31, 1925: Cases, 16.
Athens—	Nov. 1–30—	17	1	
India—				Oct. 18–Dec. 12, 1925: Cases, 13,609; deaths, 2,928.
Bombay—	Nov. 8–Dec. 26—	26	20	
Do—	Dec. 27–Jan. 9—	26	13	
Calcutta—	Nov. 29–Dec. 26—	48	25	
Do—	Dec. 27–Jan. 2—	30	13	
Karachi—	Nov. 1–21—	23		
Do—	Nov. 29–Dec. 5—	4	2	
Do—	Dec. 13–19—	3		
Do—	Dec. 29–Jan. 9—	10	4	
Madras—	Nov. 15–Dec. 20—	17	5	
Do—	Dec. 27–Jan. 16—	18	5	
Rangoon—	Oct. 25–Nov. 28—	3		
Do—	Dec. 6–26—	4	1	
Indo-China—				September–October, 1925: Cases, 204; deaths, 62. September, 1924: Cases, 78; deaths, 22.
Province—				September, 1924: Cases, 8; deaths, 2.
Annam—	Sept. 1–Oct. 31—	90	23	September, 1924: Cases, 16; deaths, 1.
Cambodia—	do—	72	30	September, 1924: Cases, 43; deaths, 19.
Cochin China—	do—	61	30	September, 1924: Cases, 11.
Saigon—	Dec. 21–27—	2	1	Sept. 6–Oct. 17, 1925: Cases, 81; deaths, 40.
Tonkin—	do—	22		
Iraq—				
Bagdad—	Nov. 1–14—	4	4	
Do—	Nov. 22–Dec. 26—	15	11	
Do—	Dec. 27–Jan. 2—	5	2	
Italy—				Aug. 2–Oct. 31, 1925: Cases, 38.
Rome—	Oct. 12–25—	1		
Jamaica—				Nov. 29–Dec. 26, 1925: Cases, 95. Dec. 27–Jan. 30, 1926: Cases, 138. Reported as alastrim.
Kingston—	Nov. 20–Dec. 26—	43		Reported as alastrim.
Do—	Dec. 27–Jan. 30—	48		Do.
Japan—				
Taiwan—	Nov. 11–Dec. 10—	3		
Yokohama—	Dec. 14–20—	1		
Java—				
Batavia—	Oct. 24–30—	1		
Do—	Nov. 14–Dec. 25—	7		
Cheijbon—	Nov. 8–14—	1		
Kruksaan—	Oct. 11–17—	11		
Maleng—	do—	2		
North Bantam—	Oct. 4–17—	4		
Pekalongan—	Oct. 25–31—	1		
Probolingo—	Oct. 11–17—	1		
Soerabaya—	Oct. 11–Dec. 19—	581	88	
South Bantam—	Oct. 11–17—	1		
Tegal—	Oct. 4–10—	9	1	
Malta—	November—	14		
Mexico—				July–September, 1925: Deaths, 1,117.
Aguaascalientes—	Dec. 13–Jan. 2—	4	3	
Do—	Jan. 3–30—		7	
Durango—	Dec. 1–31—		1	
Do—	Jan. 1–31—		2	
Guadalajara—	Feb. 1—		1	
Mexico City—	Nov. 28–Dec. 5—	1		Including municipalities in Federal District.
Do—	Jan. 3–23—	3		Provalence stated to be decreasing.
San Luis Potosi—	Jan. 24–Feb. 6—		13	
Tampico—	Dec. 21–Jan. 2—	1	1	
Do—	Jan. 2–31—	2		
Torreón—	Nov. 1–Dec. 31—		51	
Nigeria—	August–September—	103	1	
Persia—				
Tehran—				

# CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued

Reports Received from December 26, 1925, to February 26, 1926—Continued

## SMALLPOX—Continued

Place	Date	Cases	Deaths	Remarks
Peru:				
Arequipa	Oct. 1-31		1	
Poland:				Nov. 1-7, 1925: Cases, 8.
Portugal:				
Lisbon	Oct. 4-31	124		
Do	Nov. 16-Dec. 27		60	
Do	Nov. 14-Dec. 26	187		
Do	Dec. 27-Jan. 17	40	17	
Oporto	Nov. 22-Dec. 19	2	3	
Do	Dec. 27-Jan. 2	1		
Russia:				May-June, 1925: Cases, 2,333.
Do	July-August	760		Later than previously published reports.
Siam:				July 12-Sept. 5, 1925: Cases, 21; deaths, 6.
Bangkok	Dec. 20-25	3	1	
Do	Dec. 26-Jan. 2	3	3	
Sierra Leone:				
Konno district	Dec. 16-31	5		
Spain:				
Madrid	Year 1925		18	
Malaga	Nov. 29-Dec. 5		2	
Do	Dec. 27-Jan. 2		1	
Valencia	Dec. 20-26	1		
Do	Dec. 27-Jan. 2	1		
Do	Jan. 10-30	8		
Switzerland:				June 28-Nov. 21, 1925: Cases, 62.
Lucerne	Oct. 1-Nov. 30	8		
Zurich	Dec. 27-Jan. 2	1		
Trinidad (West Indies):				
Port of Spain	Jan. 22	1		Imported.
Tunisia:				
Tunis	Nov. 21-30	2		
Do	Dec. 11-31	10	1	
Do	Jan. 1-20	5		
Union of South Africa:				
Orange Free State—				
Ladybrand district	Dec. 27-Jan. 2			Outbreaks.
Transvaal—				
Belfast district	do			Do.
Pretoria district	Dec. 6-12			Outbreaks. In native compound.

## TYPHUS FEVER

Place	Date	Cases	Deaths	Remarks
Algeria:				
Algiers	Oct. 1-Dec. 20	4		
Argentina:				
Rosario	Oct. 13-Dec. 31	2		
Bulgaria:				
Sofia	September-October	26	2	
Do	Dec. 25-31	1		
Do	Jan. 8-14	2		
Chile:				
Valparaiso	Nov. 29-Jan. 2		2	
China:				
Antung	Nov. 29-Dec. 27	5	1	
Do	Jan. 4-10	1		
Hongkong	Dec. 27-Jan. 2	1		
Manchuria—				
Harbin	Dec. 17-23	1		
Czechoslovakia	October, 1925	8		
Egypt:				
Alexandria	Jan. 8-14	1		
Cairo	Nov. 5-11	2	2	
Port Said	Nov. 19-25	1		
Finland				October, 1925: 1 case.
France	July-October	4		
Germany	Oct. 25-31	1		
Greece:				
Athens	Nov. 1-30	11	2	
Saloniki	Dec. 29-Jan. 4	1		

# **CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued**

**Reports Received from December 26, 1925, to February 26, 1926—Continued**

## **TYPHUS FEVER—Continued**

Place	Date	Cases	Deaths	Remarks
Ireland:				
Cork County—				
Cork.....	Dec. 26-Jan. 1.....	2.....	.....	
Do.....	Jan. 2-8.....	5.....	.....	
Dumanway.....	Nov. 14.....	1.....	.....	
Galway County.....	Oct. 17.....	1.....	.....	
Latvia.....	October, 1925.....	2.....	.....	
Lithuania.....				September-October, 1925: Cases, 9; deaths, 1.
Mexico.....				July-September, 1925: Deaths, 90.
Aguascalientes.....	Dec. 14-19.....	1.....	.....	
Durango.....	Dec. 1-31.....	.....	1.....	
Do.....	Jan. 1-31.....	.....	1.....	
Guadalajara.....	Dec. 8-Jan. 4.....	.....	3.....	
Mexico City.....	Nov. 22-Dec. 26.....	157.....	.....	Including municipalities in Federal District.
Do.....	Dec. 27-Jan. 30.....	37.....	.....	
Tampico.....	Dec. 21-Jan. 10.....	1.....	1.....	
Torreón.....	November, 1925.....	.....	1.....	
Vera Cruz.....	Feb. 12.....	.....	1.....	
Morocco.....	August, 1925.....	3.....	.....	
Palestine:				
Gaza.....	Dec. 18.....	1.....	.....	
Jaffa.....	Dec. 1-7.....	1.....	.....	
Nazareth.....	Nov. 3-9.....	1.....	.....	
Safad.....	Nov. 24-30.....	1.....	.....	
Tel-Aviv.....	do.....	1.....	.....	
Peru:				
Arequipa.....	October, 1925.....	.....	2.....	
Poland.....	Oct. 11-Nov. 14.....	142.....	16.....	
Rumana.....				July, 1925: Cases, 74; deaths, 9.
Russia.....				May-June, 1925. Cases, 10,680.
Do.....				Later than previously published reports.
Union of South Africa.....				July-August, 1925: Cases, 3,136.
				Oct. 1-31, 1925: Cases, 88; deaths, 7 (colored); cases, 7 (European population).
Cape Province.....	Oct. 1-31.....	63.....	5.....	Colored.
Do.....	Nov. 8-Dec. 26.....	.....	.....	Outbreaks.
Middleburg district.....	Dec. 6-12.....	.....	.....	European. On farm.
Natal.....	Oct. 1-Dec. 5.....	1.....	.....	
Orange Free State.....	Nov. 29-Dec. 5.....	23.....	1.....	
Do.....	Nov. 1-Dec. 26.....	.....	.....	Outbreaks.
Bethulia district.....	Dec. 6-12.....	.....	.....	Do.
Bothaville district.....	do.....	1.....	.....	Native. On farm.
Transvaal.....	Oct. 1-31.....	1.....	1.....	
Do.....	Dec. 13-26.....	.....	.....	Outbreaks.
Bloemhof district.....	Dec. 27-Jan. 2.....	.....	.....	Outbreaks. On farm.

## **YELLOW FEVER**

Gold Coast.....	September.....	1.....	1.....	
Nigeria.....	August-September.....	2.....	1.....	



TREASURY DEPARTMENT

# PUBLIC HEALTH REPORTS

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VOLUME 41 :: :: NUMBER 11

MARCH 12 - - 1926

## SPECIAL ARTICLES

Rocky Mountain Spotted Fever: Rickettsia-like Organisms  
and Infectiveness of Ticks

Recent Court Decisions Relating to Public Health



WASHINGTON  
GOVERNMENT PRINTING OFFICE

1926

## UNITED STATES PUBLIC HEALTH SERVICE

HUGH S. CUMMING, *Surgeon General*

### DIVISION OF SANITARY REPORTS AND STATISTICS

Asst. Surg. Gen. B. J. LLOYD, *Chief of Division*

The PUBLIC HEALTH REPORTS are issued weekly by the United States Public Health Service through its Division of Sanitary Reports and Statistics, pursuant to acts of Congress approved February 15, 1893, and August 14, 1912.

They contain: (1) Current information of the prevalence and geographic distribution of preventable diseases in the United States in so far as data are obtainable, and of cholera, plague, smallpox, typhus fever, yellow fever, and other communicable diseases throughout the world. (2) Articles relating to the cause, prevention, or control of disease. (3) Other pertinent information regarding sanitation and the conservation of the public health.

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# PUBLIC HEALTH REPORTS

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## ROCKY MOUNTAIN SPOTTED FEVER

### A STUDY OF THE RELATIONSHIP BETWEEN THE PRESENCE OF RICKETTSIA-LIKE ORGANISMS IN TICK SMEARS AND THE INFECTIVENESS OF THE SAME TICKS

By R. R. PARKER, Special Expert, and R. R. SPENCER, Surgeon, United States Public Health Service<sup>1</sup>

Observations upon Rocky Mountain spotted fever infection in the tick vector (*Dermacentor andersoni* Stiles) have shown repeatedly that if of two groups of hibernating adult ticks from the same infected lot,<sup>2</sup> the ticks of one group were examined without feeding and those of the other after feeding, those of the fed group would show (a) a greater percentage of ticks in which rickettsia can be demonstrated, (b) a tremendous increase in the number of rickettsia in the individual ticks, and (c) a much higher percentage of infective ticks. In fact, in *unfed* infected adults the rickettsia associated with Rocky Mountain spotted fever are often very difficult, or impossible, to find by smear preparations, whereas in *fed* ticks of the identical lot they are usually very abundant.

Our observations tabulated below were made upon individual adult ticks, part of them wild and of unknown history, and part reared, infected stock lots, the histories of which were known for at least one full laboratory generation. The latter were infected as larvæ and tested as the resultant adults of the same generation.

Because of our evidence that both infectiousness of spotted fever virus and the presence of rickettsia can be more accurately determined in ticks that have ingested blood, all adults used (except the controls under "A" below) were permitted to feed for two or sometimes three days prior to dissection.

For the demonstration of the rickettsia we depended upon the examination of smears of pieces of tick tissue from the salivary glands, brain, intestines, reproductive organs, Malpighian tubules, and sucking muscles (muscles of the chelicerae). These smears were fixed for one-half hour in Regaud's solution,<sup>3</sup> and stained in Giemsa's solution. The remaining viscera of each tick were inoculated intra-

<sup>1</sup> The authors wish to express their appreciation of the cooperation and assistance furnished by the Montana State Board of Entomology.

<sup>2</sup> By "lot" is meant that the ticks used are all the progeny of a single female. Such lots are infected as larvæ or nymphs on the same host, and subjected to the same feeding and environmental condition throughout each generation. Ticks thus reared are especially valuable for comparative experimental procedure.

<sup>3</sup> Potassium bichromate (3 per cent) ..... 100 parts.  
Formalin (40 per cent) ..... 25 parts.

peritoneally into a guinea pig, thus affording an opportunity to compare smear results with the infectiousness of the same ticks.

#### A. ADULT TICKS REARED AND INFECTED IN THE LABORATORY (1923 SERIES)

Table 1 presents the results of smear examinations and viscera inoculations with both fed and unfed adult ticks of the known infected lot, 797 B.<sup>1</sup> All ticks in Table 1, except 12 controls (Nos. 1 to 6 and 62 to 67) were first fed on an animal host in order to "reactivate" the virus, next examined for rickettsia by means of smear preparations, and finally tested for infectiveness by inoculating the remaining viscera into a guinea pig. For the smear preparations, parts of the salivary glands, brain, intestines, reproductive organs, and Malpighian tubules were used.

TABLE 1.—*Presence of rickettsia-like organisms in laboratory-reared, infected adult ticks (lot 797 B) compared with the results of injecting guinea pigs with emulsions of the same ticks (section A of text)*

UNFED ADULT TICKS							
Tick No.	Date tested	Stained smears					Result of guinea-pig inoculation
		Brain	Salivary gland	Intestines	Reproductive organs	Malpighian tubule	
1	July 31, 1923	-	-	-	-	-	Negative.
2	do	-	-	+	-	-	Do.
3	do	-	-	-	-	-	Do.
4	do	+	-	+	+	+	Died in 6 days. Cause undetermined.
5	do	-	-	-	-	-	Negative, subsequently immune.
6	do	-	-	-	-	-	Do.
FED ON CALF FROM JULY 21 TO AUGUST 2							
7	Aug. 6, 1923	-	-	-	-	-	Spotted fever
8	do	+	+	+	-	+	Do
9	do	-	-	-	-	+	Do
10	do	-	-	-	-	-	Do
11	do	+	+	+	-	+	Negative
12	do	-	-	-	-	-	Do.
13	Aug. 7, 1923	+	+	+	-	+	Spotted fever.
14	do	+	+	+	-	+	Do.
15	do	-	-	-	-	-	Negative
FED ON JACK RABBIT FROM JULY 21 TO AUGUST 1							
16	Aug. 7, 1923	+	+	+	-	+	Spotted fever
17	do	-	-	-	-	-	Do
18	do	-	-	+	-	-	Do
19	do	+	+	+	-	+	Do
20	do	+	+	+	-	-	Do
21	Aug. 11, 1923	+	+	+	-	-	Do
22	do	-	-	-	-	-	Do
23	do	+	+	+	+	+	Negative.
24	do	-	-	-	-	-	Spotted fever
25	do	+	+	+	+	+	Do.

<sup>1</sup> History of lot 797 B:

May 20, 1922.—Engorged female collected from a horse.

July 1, 1922.—Larvæ began hatching from eggs deposited by female.

Sept. 12, 1922.—Larvæ began feeding on an infected Belgian rabbit; inoculated 5 days previously with a laboratory strain of spotted fever.

Oct. 1, 1922.—Engorged larvæ began molting to flat nymphs.

Apr. 14, 1923.—Normal Belgian rabbit infested with flat nymphs.

May 6, 1923.—Engorged nymphs tested and found infected by inoculation in a guinea pig.

June 2, 1923.—Engorged nymphs began molting to flat adults.

TABLE 1.—*Presence of rickettsia-like organisms in laboratory-reared, infected adult ticks (lot 797 B) compared with the results of injecting guinea-pigs with emulsions of the same ticks (section A of text)*—Continued

## FED ON HORSE FROM JULY 21 TO AUGUST 8

Tick No.	Date tested	Stained smears					Result of guinea-pig inoculation
		Brain	Salivary gland	Insectines	Reproductive organs	Malpighian tubule	
26	Aug. 8, 1923	+	+	+	+	+	Spotted fever
27	do.	+	+	+	+	+	Do.
28	do.	+	+	+	+	+	Do.
29	do.	+	+	+	+	+	Negative.
30	do.	+	+	+	+	+	Spotted fever.
31	do.	+	+	+	+	+	Do.
32	do.	+	+	+	+	+	Do.
33	do.	+	+	+	+	+	Negative.
34	do.	+	+	+	+	+	Do.
35	do.	+	+	+	+	+	Spotted fever.
36	do.	+	+	+	+	+	Do.

## FED ON BELGIAN RABBIT FROM JULY 21 TO AUGUST 7

37	Aug. 9, 1923	+	+	+	+	+	Spotted fever.
38	do.	+	+	+	+	+	Do.
39	do.	+	+	+	+	+	Do.
40	do.	+	+	+	+	+	Do.
41	do.	+	+	+	+	+	Do.

## FED ON SNOWSHOE RABBIT FROM JULY 23 TO AUGUST 9

42	Aug. 11, 1923	+	+	+	+	+	Spotted fever
43	do.	+	+	+	+	+	Do.
44	do.	+	+	+	+	+	Do.
45	do.	+	+	+	+	+	Do.
46	do.	+	+	+	+	+	Do.
47	do.	+	+	+	+	+	Do.

## FED ON SHEEP FROM JULY 25 TO AUGUST 9

48	Aug. 13, 1923	+	+	+	+	+	Spotted fever.
49	do.	+	+	+	+	+	Do.
50	do.	+	+	+	+	+	Negative
51	do.	+	+	+	+	+	Spotted fever
52	do.	+	+	+	+	+	Do.
53	do.	+	+	+	+	+	Do.
54	do.	+	+	+	+	+	Died in 2 days
55	do.	+	+	+	+	+	Negative. Valueless.

## FED ON GUINEA PIG FROM AUGUST 1 TO AUGUST 20

56	Aug. 20, 1923	+	+	+	+	+	Negative.
57	do.	+	+	+	+	+	Spotted fever.
58	do.	+	+	+	+	+	Do.
59	do.	+	+	+	+	+	Do.
60	do.	+	+	+	+	+	Negative.
61	do.	+	+	+	+	+	Spotted fever.

## UNFED ADULT TICKS

62	Aug. 23, 1923	+	+	+	+	+	Negative.
63	do.	+	+	+	+	+	Do.
64	do.	+	+	+	+	+	Do.
65	do.	+	+	+	+	+	Do.
66	do.	+	+	+	+	+	Do.
67	do.	+	+	+	+	+	Do.

*Initial tests of unfed control ticks.*—On July 21, six unfed ticks (Nos. 1 to 6) were dissected, smeared, and inoculated. Rickettsia were found in only two of them and none of the inoculated guinea pigs developed spotted fever. The rickettsia occurring in such non-fever-producing ticks (Nos. 2 and 4) were always morphologically indistinguishable (coccioid, short bacillary and diplo-bacillary forms) from those found in the fed ticks, which did produce spotted fever.

*Tests of fed ticks.*—Fifty-five ticks (Nos. 7 to 61) were fed on various hosts as indicated in the table. The following tabulation shows the relationship found between the presence or absence of rickettsia in the smears and the infectiveness of the viscera of these 55 fed ticks:

Rickettsia in smears		Results of inoculation of remaining viscera of identical ticks	
Present	Absent	Spotted fever	Negative
40	----- 15	35 8	5 7

<sup>1</sup> Nos. 11, 23, 50, 56, 60.

<sup>2</sup> Nos. 7, 10, 17, 22, 24, 36, 42, 46.

It is evident that of 40 ticks in which rickettsia were present, 35 produced spotted fever and 5 did not, and that of 15 in which rickettsia were not demonstrated 8 produced spotted fever and 7 did not. Comparing the initial control tests upon the unfed ticks with the fed ticks, marked increases are observed in the proportion of ticks showing rickettsia and the proportion of ticks producing spotted fever following inoculation. The percentage of ticks with rickettsia was increased from 33.33 to 72.72, and that of infective ticks (immunity-producing ticks excluded) from zero to 78.18.<sup>3</sup> We observed also the usual tremendous increase in the number of rickettsia in individual tick smears of the fed group as compared with the unfed.

*Final tests of unfed control ticks.*—Control tests upon the unfed ticks were again made on August 29, following the termination of the experimental feedings. This was done in order to rule out the possibility that the increase in the number of rickettsia noted in smears, and the increase in the infectiveness of the viscera of fed ticks (Nos. 7 to 61) might have been due to some environmental condition other than the tick feeding or some other unrecognized influence to which

<sup>3</sup> The virus from wintered, unfed ticks has never produced typical infection but has frequently immunized the animals injected. The virus of tick No. 5, Table 1, gave such a result, but was not included in the percentages here given.

the rickettsia in both fed and unfed adults were exposed subsequent to the initial tests, and prior to the tests upon the fed ticks. Of these six unfed ticks (Nos. 62 to 67) none produced spotted fever upon inoculation, and only two showed rickettsia in the smears, these results being identical with those of the initial control test. Therefore, the increase in rickettsia as well as the infectiousness in ticks Nos. 7 to 61 was manifestly brought about by the ingestion of blood and attendant conditions. The rickettsia in these latter unfed controls were, like those in controls Nos. 2 and 4, morphologically indistinguishable from those found in the fed ticks.

#### B. WILD ADULT TICKS (1923 SERIES)

It is interesting to compare the results secured with wild ticks with those just given for the known infected lot, 797B. The unfed wild ticks were collected both from the east and west sides of the Bitterroot Valley, the latter being an area of severe infection, whereas no human cases have ever been shown to have originated on the east side, nor have we ever recovered infection from east-side ticks. As before, all ticks were fed on guinea pigs for two days prior to dissection.

Although smears and inoculations were made from 800 ticks we have tabulated in Table 2 only a small selected group of these east and west side wild adult ticks which show definite rickettsia. Many of these showed rickettsia similar to those of the infected group in the smears of one or more tissues, but were not infective upon inoculation.

TABLE 2.—*Presence of rickettsia-like organisms in miscellaneous adult ticks from nature, compared with result of injecting guinea pigs with emulsions of the same ticks (section B of text)*

#### FED ON GUINEA PIG JUNE 26 AND 27 (EAST SIDE)

Tick No	Date tested	Stained smears					Result of guinea-pig inoculation
		Brain	Salivary gland	Intestines	Reproductive organs	Malgian tubule	
1	July 17, 1923	—	—	—	+	—	Negative.
2	do	—	—	—	+	—	Do.
3	do	—	—	—	+	—	Do.
4	do	—	—	—	+	—	Do.
5	July 19, 1923	—	—	—	+	—	Do.
6	do	—	—	—	+	—	Do.
7	do	—	—	—	+	—	Do.

#### FED ON GUINEA PIG JULY 7 TO 9 (WEST SIDE)

8	July 26, 1923	—	—	—	+	—	Negative.
9	do	—	+	—	+	+	Do.
10	do	+	+	+	+	+	Do.
11	do	—	—	—	+	+	Do.

TABLE 2.—*Presence of rickettsia-like organisms in miscellaneous adult ticks from nature, compared with result of injecting guinea pigs with emulsions of the same ticks (section B of text)—Continued*

FED ON GUINEA PIG JULY 13 TO 15 (WEST SIDE)

Tick No.	Date tested	Stained smears					Result of guinea-pig inoculation
		Brain	Salivary gland	Intestines	Reproductive organs	Malpighian tubule	
12	July 26, 1923	—	—	—	—	+	Negative.
13	do	—	—	—	—	—	Do.
14	do	—	—	+	+	+	Do.
15	July 31, 1923	+	+	—	—	—	Do.
16	do	—	—	—	—	—	Do.
17	do	—	—	—	—	—	Do.
18	July 23, 1923	+	+	+	+	+	Do.
19	do	+	+	+	+	+	Do.
20	do	—	—	—	—	—	Do.
21	do	+	+	+	+	+	Do.
22	July 24, 1923	—	—	—	—	—	Do.
23	do	+	—	+	+	+	Do.
24	do	—	—	—	—	—	Do.
25	do	—	—	—	—	—	Do.
26	July 25, 1923	+	+	+	+	+	Do.
27	do	—	—	—	—	—	Do.
28	do	+	+	+	+	+	Do.

## C. ADULT TICK TESTS (1925 SERIES)

Two years after the above tests had been performed, two more series of 100 ticks each, infected and uninfected, were similarly tested, with the exception that smears of the sucking muscles (muscles of the chelicerae) were made in addition to the smears of the other tick tissues. This was done because rickettsia in large numbers are so frequently present in the muscles of infected adults both before and after feeding, especially under the latter conditions.

The 100 ticks of the infected series were from several lots reared in the laboratory. Their histories were analogous to the history of lot 797 B, having been infected as larvae during the summer of 1921, reared to adults by fall, and having passed the following winter as unfed adults. The 100 ticks of the noninfected series were collected from the east side of the Bitterroot Valley during the spring of 1925. All ticks of both series were fed on guinea pigs for three days in groups of about 25 to an animal, then dissected, the smears of the six tissues made, and, finally, the remaining viscera of each tick injected into a guinea pig. Healthy male animals weighing 500 grams or over were used exclusively.

Table 3 gives the occurrence and distribution of rickettsia in the two series.



TABLE 3.—*Occurrence and distribution of rickettsia in wild and in reared infected adult ticks of D. andersoni (section C of text)*

[1925 series]

## RICKETTSIA OCCURRENCE

	Present in—	Absent in—
100 adult ticks from east side of Bitterroot Valley <sup>1</sup> .....	42 ticks.....	58 ticks.
100 reared infected adults <sup>2</sup> .....	60 ticks.....	40 ticks.

## RICKETTSIA DISTRIBUTION

	42 noninfected ticks	60 infected ticks
Rickettsia in muscle smears.....	5 ticks.....	54 ticks.
Rickettsia in brain smears.....	do.....	55 ticks.
Rickettsia in salivary-gland smears.....	3 ticks.....	47 ticks.
Rickettsia in intestine smears.....	4 ticks.....	52 ticks.
Rickettsia in reproductive organs smears.....	30 ticks.....	48 ticks.
Rickettsia in Malpighian tubule smears.....	4 ticks.....	52 ticks.

<sup>1</sup> None of the 100 guinea pigs injected with viscera of these ticks developed spotted fever.<sup>2</sup> 65 guinea pigs injected with tick viscera of this lot gave evidence of spotted fever.

In the noninfected east-side group smears of 42 ticks (42 per cent) showed rickettsia. Thirty-six of these showed these organisms in the reproductive organs, while in only 8 ticks were they present in any of the other tissues. In the infected group, on the other hand, rickettsia were present in 60 ticks (60 per cent); and instead of being largely restricted to the reproductive organs, they were usually distributed in large numbers throughout the tissues.

In the noninfected group the rickettsia stained, as a rule, purple or pink and were generally filiform organisms. However, in many instances they closely resembled, and to us were indistinguishable from the deep-blue staining, short bacillary and diplo-bacillary forms found in the infected group.

In the muscle tissue of the infected group the rickettsia were very numerous, stained blue, and frequently were arranged in rows packed *between* the muscle fibers (not intracellular). This arrangement and staining in the muscles of ticks were features of the rickettsia occurring in the reared infected lot which were never observed in the east-side ticks.

Of the 100 ticks from the east side of the Bitterroot Valley not one produced spotted fever when the viscera were injected into guinea pigs, nor were any of the animals subsequently immune to 1 cc. of guinea pig's blood virus.

Of the infected group which is further analyzed in Table 4, 60 produced spotted fever and 5 (a total of 65 per cent) gave evidence of infection by immunizing the injected guinea pigs against a subsequent injection of blood virus. In some individual lots of this infected group more than 90 per cent gave evidence of infection, in others only 33½ per cent.

TABLE 4.—*Comparison of results of guinea-pig inoculation of the viscera of 100 reared, infected adult ticks with the presence of rickettsia in the smears of same*

[1925 series]

## 100 REARED INFECTED ADULT TICKS

60 ticks with rickettsia in one or more organs				40 ticks in which rickettsia could not be found			
Result of guinea-pig injection				Result of guinea-pig injection			
Evidence of infection		No evidence of infection		Evidence of infection		No evidence of infection	
Spotted fever	Im-munity	Negative	Death from inter-current infection	Spotted fever	Im-munity	Negative	Death from inter-current infection
54	0	5	1	6	5	27	2

Sixty ticks showed rickettsia in one or more organs. Five of these did not produce spotted fever although the organisms appeared to be identical with those in ticks that did produce the disease.

Among the 40 ticks in which rickettsia were not found, 6 gave spotted fever and 5 immunized the animals injected.

It is evident, then, in testing this group of adult ticks, all infected when larvae with spotted fever virus, that rickettsia could not be demonstrated in the smears of 11 of 65 ticks (16.92 per cent) definitely shown to have contained spotted-fever virus by the injection of the viscera of the identical ticks into guinea pigs, and further that rickettsia indistinguishable from those associated with spotted fever were found in the smears of 5 of 32 ticks (15.62 per cent) that did not produce any evidence of spotted fever when similarly inoculated.

## SUMMARY AND DISCUSSION

The data as presented show the following: (1) That, although of known infected adult ticks the majority of those containing rickettsia were infective, yet of each lot tested a small group of noninfective ticks contained rickettsia morphologically identical, while still another small group was infectious though the tick smears were entirely free of organisms. (2) That of wild ticks from a known infected area a considerable proportion contained rickettsia indistinguishable from those associated with spotted fever, and that the smear and inoculation results of such ticks were parallel with those of the known infected group. (3) That a small proportion of wild ticks from a supposedly uninfected area contained similar rickettsia, but none caused infection.

It is difficult to account for the noninfective rickettsia which were present in part of the known infected, laboratory-reared ticks (Tables

1 and 4) and which exhibited a morphology identical with that of the rickettsia in fever-producing ticks of the same group. They may represent an avirulent phase of the spotted fever virus, although the nonpathogenic nature of these bodies can not, of course, be ruled out. This accords with previous observations<sup>6</sup> of tick virus in a similar lot of known infected ticks by which we demonstrated various degrees of virulence for guinea pigs ranging from a noninfective or an immunizing phase in *unfed*, *æstivating*, or hibernating ticks to an active highly virulent phase *following feeding*. The term "re-activation" has been used to designate this transition,<sup>7</sup> which has been repeatedly observed in known infected lots. For example, in recently infected larvæ, the virus is present but is noninfective unless massive doses are used (5 engorged larvæ very rarely infect; 25 usually, but not always cause infection, often of a mild character); in the resultant *unfed* hibernating nymphs the virus is present either in a noninfective or immunizing phase, but in the *fed* nymphs it has acquired marked virulence; a noninfectious or immunizing phase is again encountered in the resultant *unfed*, *æstivating*, or hibernating adults, but in the *fed* adults a high degree of virulence has been reacquired.

In presenting these observations we realize that the relatively small part of the tissue of a tick represented by our smear preparations can not be taken as absolute evidence of the absence of rickettsia from the entire tick. However, it is at least reasonable to believe that they were few in number, since the test ticks had all ingested blood and the rickettsia had thus been afforded, as we have shown, the most favorable conditions for multiplication and distribution throughout the various tissues. There is, of course, the possibility that they were present in an unrecognized form.

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## NEW YORK GOVERNOR EMPHASIZES HEALTH NEEDS

INDORSES STATE AID TO LABORATORIES, ADVOCATES COUNTY HEALTH UNIT, AND APPROVES HIGH EDUCATIONAL STANDARDS FOR MEDICAL PRACTICE

A recent issue of the Health Officers' Weekly Bulletin of the New Mexico State Bureau of Public Health calls attention to recommendations regarding public health made by Governor Smith, of New York, in his latest annual message to the State legislature, particularly with reference to extension of State aid to local public health laboratories and the desirability of establishing the county as the unit for public health administration.

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<sup>6</sup> Spencer, R. R., and Parker, R. R.: Rocky Mountain Spotted Fever: Experimental Studies of Tick Virus. Pub. Health Rep., Nov. 28, 1925. Reprint No. 976.

<sup>7</sup> Spencer, R. R., and Parker, R. R.: Rocky Mountain Spotted Fever: Infectivity of Fasting and Recently Fed Ticks. Pub. Health Rep., Feb. 23, 1923. Reprint No. 817. See also footnote 6.

The following is quoted from a recent Health News, issued by the New York State Department of Health:

One of the great functions of government is the preservation of public health. Our State health department has established the slogan, "Within certain natural limitations public health is purchasable." No expenditure of public funds brings greater return to the State and its people than the money used for the promotion of the public health. Prevention of disease is cheaper than its cure or long-extended care and support.

Our public health laboratories have been of great assistance in the prevention of disease and are an index of the character and extent of the whole field of public health work throughout the State. There are now 106 approved laboratories in various parts of the State. Since 1923, when the first appropriation was granted for State aid to local public health laboratories, the amounts expended by the State to meet local appropriations have increased yearly and the standards of work have steadily advanced. It is to be hoped that many other localities of the State will take advantage of State aid and increase this very necessary service.

I feel compelled to call your attention to a weakness in our present health administration under the law which has been in existence since the reorganization of the State health department in 1914. The present unit of local health administration is entirely too small for efficient work. It is carried on by general practitioners of medicine in small localities, who, with totally inadequate compensation, are endeavoring, to the best of their ability and with the comparatively short time which they can devote to public health work, to discharge the duties required of them by the public health law, and it is due to the unselfish devotion of the great majority of local health officers and their cooperation with the State health authorities that so much has been accomplished.

The unit for local public health work should be the county, with a full-time, qualified, county health officer, who should be made responsible for the conduct of local health matters within his jurisdiction with only such supervision as the State may be required to give in an advisory capacity. Such an organization has been possible under the law for several years; yet, only one county—namely, Cattaraugus—has seen fit to take advantage of it, and with the very best results in promoting the physical welfare of the inhabitants. Other States have made notable progress in county health administration, and there are now some 250 such organizations throughout the country.

It should also be noted that under the act providing State aid for rural counties, counties which establish a county health organization may receive from the State one-half of the amount appropriated by the county boards. This need not be an expensive service to the local community, and it is to be hoped that in the near future more counties will avail themselves of the provisions of these two laws which mean so much to the promotion of public health. \* \* \*

In recommending the establishment of high standards for medical practice the governor stated:

I renew the recommendation of a year ago that careful consideration be given to the protection of the people of the State from unlicensed and unqualified persons practicing medicine. The cooperation of the medical profession is an essential factor in the protection of the public health, as well as in the care of the sick. A very large part of modern public health is urging people to get the advice of their physicians before serious and perhaps incurable conditions have developed. Such effort comes to naught if unqualified persons are allowed to hold themselves out as physicians. The subject is a difficult one, but the State of New York should take the lead in establishing high standards of medical practice and providing a practicable plan for their enforcement. It is a matter of justice to qualified physicians and of protection to the public.

## SMALLPOX IN FLORIDA

Asst. Surg. Gen. S. B. Grubbs, of the United States Public Health Service, telegraphed from Jacksonville, Fla., under date of March 7, 1926, that from February 1 to March 3, 589 cases of smallpox were reported in Florida. During the same period Jacksonville reported 106 cases of this disease, Miami 154 cases, and West Palm Beach 65 cases. Reports for December and January were published in the Public Health Reports March 5, 1926, page 423.

Efforts are being made by the Public Health Service and by the State and local health authorities to impress the people of Florida with the necessity for vaccination.

## ABSTRACTS OF COURT DECISIONS RELATING TO PUBLIC HEALTH

*Payment by counties of fees of local registrars of vital statistics held unlawful.*—(Georgia Supreme Court; Smith, Comr., et al. v. State et al., 129 S. E. 542; decided June 22, 1925.) The Georgia constitution provided that "The general assembly shall not have the power to delegate to any county the right to levy a tax for any purpose, except \* \* \* to provide for necessary sanitation." The question presented to the court was whether or not the legislature could, under this constitutional provision, delegate to a county the right to levy a tax for the purpose of paying the fees of registrars of births and deaths under the vital statistics laws of the State. This question the court answered in the negative, holding that the discharge of the duties of local registrars did not provide or tend to provide for necessary sanitation, and also holding that the law authorizing the payment of local registrars from county funds was unconstitutional and void. The following is taken from the court's opinion:

Formerly, officials charged with the financial affairs of a county were not authorized to purchase vaccine matter for the inoculation of persons against smallpox. *Daniel v. Putnam County*, 113 Ga. 570, 38 S. E. 980, 54 L. R. A. 292. It was doubtless due to this decision that the constitution was so amended in 1908 as to authorize the legislature to empower counties to levy taxes "to provide for necessary sanitation." \* \* \* It was never the intention of the framers of the amendment to the constitution to use the term "sanitation" in its broadest sense. It was not remotely in the mind of the people, in adopting this amendment, to authorize the expenditure of the public funds of a county, to gather data from which those engaged in medical research might discover new means of preventing disease, and in discovering new methods of securing sanitation. If we are to adopt the broadest meaning which could be given to the word "sanitation," the legislature could authorize the county authorities to expend the public funds for the establishment and maintenance of medical and dental colleges, laboratories, maternity hospitals, factories for making medicines, dispensaries, public baths, and institutions for research work designed to dis-

cover new methods of sanitation. We can not conceive that the framers of this amendment, and the people, in adopting it, had any such purpose in view. Clearly their purpose was to empower the legislature to authorize a county to levy a tax for the purpose of applying known and recognized methods of sanitation, such as vaccination to prevent smallpox, serums to prevent typhoid fever, diphtheria, scarlet fever, and the like, the purification of water, the destruction of the mosquito which produces yellow fever and malaria, and other well-known methods of sanitation. This provision of the constitution must be given a plain, practical, and common sense construction. So we are of the opinion that this provision of the constitution does not empower the legislature to authorize a county to levy taxes to pay the fees of these local registrars, and that the statute authorizing their payment from the public funds of the county is unconstitutional and void.

*County health officer's expenses in attending professional meeting outside of State not payable by county.*—(Mississippi Supreme Court; Miller, State Revenue Agent, v. Tucker et al.; Same v. Harding et al., 105 So. 774; decided November 2, 1925.) In a suit against certain persons as members of the board of supervisors of a county to recover for alleged invalid allowances of claims against the county, one of the items which the court held the board had no authority to allow was for expenses of the county health officer in making a trip to Washington to attend a professional meeting. It was contended that the claim was properly allowed by the board because it fell under the board's jurisdiction "of all matters of county police," but the court ruled adversely to such contention.

*Marriage annulled for fraud where husband concealed fact of being an epileptic.*—(New Jersey Court of Chancery; Busch v. Gruber, 131 A. 101; decided November 27, 1925.) The petitioner asked an annulment of her marriage on the ground that the defendant had concealed from her the fact that he was afflicted with epilepsy. The court decreed an annulment, stating that "when a man who contracts marriage is and has been suffering from epilepsy (a chronic disease of the nervous system, attended by brain deterioration, which is progressive, is congenital, and likely to be transmitted by marriage and childbearing, and is considered incurable) [and] represents to his prospective wife that he is in good health, had never been sick, and had had no occasion for a doctor, and within a short time after the marriage had epileptic fits, and his wife then for the first time discovered the disease with which he was afflicted, and straightway left him, having had no knowledge of his condition at or before the time of the nuptials, the wife is entitled to have the marriage annulled for fraud, notwithstanding consummation."

*Compensation under workmen's compensation act allowed where tuberculosis followed chest injury.*—(Iowa Supreme Court; Frazee v. McClelland Co. et al., 205 N. W. 737; decided November 17, 1925.) The plaintiff, a woodworker, was engaged with several other employees in moving a heavy oaken door. During the moving the

door tipped and the plaintiff, resisting it, was finally squeezed against the wall. Three days later on examination by the company physician a small red spot on the chest was the only external evidence of injury, but unsatisfactory internal conditions in the chest were found, and later tuberculosis developed. Up to the time of the injury the plaintiff had always been apparently healthy, but immediately following the injury he lost weight rapidly. The supreme court affirmed the judgment of the lower court granting compensation.

*Laws relating to eradication of bovine tuberculosis upheld and construed.*—(Iowa Supreme Court; *Peverill v. Board of Suprs. of Black Hawk County et al.*, 205 N. W. 543; decided October 27, 1925.) This case involved the validity and construction of statutory provisions pertaining to testing and to accredited areas in the work of eradicating tuberculosis in cattle. Certain provisions of chapter 48, Laws of 1923, which were attacked were held constitutional and other statutory provisions on the subject of bovine tuberculosis eradication were construed. The plaintiff was denied an injunction to prevent the publication of the necessary notice for the enrollment of a certain county as an accredited area.

## DEATHS DURING WEEK ENDED FEBRUARY 27, 1926

*Summary of information received by telegraph from industrial insurance companies for week ended February 27, 1926, and corresponding week of 1925. (From the Weekly Health Index, March 2, 1926, issued by the Bureau of the Census, Department of Commerce.)*

	Week ended Feb. 27, 1926	Corresponding week 1925
Policies in force.....	63, 454, 977	58, 814, 219
Number of death claims.....	12, 366	11, 954
Death claims per 1,000 policies in force, annual rate..	10. 2	10. 6

Deaths from all causes in certain large cities of the United States during the week ended February 27, 1926, infant mortality, annual death rate, and comparison with corresponding week of 1925. (From the Weekly Health Index, March 2, 1926, issued by the Bureau of the Census, Department of Commerce)

City	Week ended Feb. 27, 1926		Annual death rate per 1,000 corresponding week 1925	Deaths under 1 year		Infant mortality rate week ended Feb. 27, 1926 <sup>2</sup>
	Total deaths	Death rate <sup>1</sup>		Week ended Feb. 27, 1926	Corresponding week 1925	
Total (68 cities).....	8,887	10.0	13.9	1,017	966	<sup>3</sup> 83
Akron.....	35			6	7	64
Albany.....	48	21.2	15.5	3	3	63
Atlanta.....	78			13	8	
White.....	37			4		
Colored.....	41	( <sup>4</sup> )		9		
Baltimore.....	301	19.7	16.1	29	37	85
White.....	236			20		71
Colored.....	65	( <sup>4</sup> )		9		146
Birmingham.....	96	24.3	22.3	10	9	
White.....	42			5		
Colored.....	54	( <sup>4</sup> )		5		
Boston.....	222	14.8	19.3	26	50	73
Bridgeport.....	37			9	8	153
Buffalo.....	155	15.0	18.8	24	35	100
Cambridge.....	26	11.3	11.3	3	3	50
Camden.....	57	23.1	19.5	7	5	118
Chicago.....	755	13.1	12.2	92	95	81
Cincinnati.....	120	15.3	14.1	15	10	93
Cleveland.....	280	12.8	11.0	32	32	83
Columbus.....	71	13.2	14.9	5	12	46
Dallas.....	72	19.4	13.2	8	5	
White.....	56			7		
Colored.....	16	( <sup>4</sup> )		1		
Dayton.....	32	9.6	13.6	7	6	110
Denver.....	109	20.2	15.8	7	8	
Des Moines.....	57	19.9	10.5	2	7	33
Detroit.....	370	15.5	12.1	60	54	97
Duluth.....	30	14.2	9.0	3	1	70
El Paso.....	43	21.4	17.9	6	6	
Erie.....	28			4	6	76
Full River.....	32	12.9	16.2	1	10	15
Flint.....	20	8.0	10.8	4	5	60
Fort Worth.....	31	10.6	9.6	4	2	
White.....	24			2		
Colored.....	7	( <sup>4</sup> )		2		
Grand Rapids.....	29	9.8	11.5	4	4	78
Houston.....	72	22.8	15.8	7	7	
White.....	47			3		
Colored.....	25	( <sup>4</sup> )		3		
Indianapolis.....	120	17.4	15.0	18	11	132
White.....	104			15		127
Colored.....	16	( <sup>4</sup> )		3		165
Jacksonville, Fla.....	42	20.9	10.9	3	3	62
White.....	21			2		65
Colored.....	21	( <sup>4</sup> )		1		57
Jersey City.....	91	15.1	10.3	13	4	92
Kansas City, Kans.....	29	13.0	11.2	1	2	17
White.....	24			1		21
Colored.....	5	( <sup>4</sup> )		0		0
Kansas City, Mo.....	115	16.3	18.6	13	20	
Los Angeles.....	290			19	22	53
Louisville.....	84	14.5	16.9	11	11	95
White.....	68			10		100
Colored.....	16	( <sup>4</sup> )		1		63
Lowell.....	36	17.0	14.7	8	4	149
Lynn.....	26	13.2	16.2	1	6	25
Memphis.....	85	25.4	20.3	8	12	
White.....	32			1		
Colored.....	53	( <sup>4</sup> )		7		
Millwaukee.....	106	11.0	10.6	19	13	88
Minneapolis.....	75	9.2	12.7	7	15	39

<sup>1</sup> Annual rate per 1,000 population.

<sup>2</sup> Deaths under 1 year per 1,000 births. \*Cities left blank are not in the registration area for births.

<sup>3</sup> Data for 63 cities.

<sup>4</sup> Deaths for week ended Friday, February 26, 1926.

<sup>5</sup> In the cities for which deaths are shown by color, the colored population in 1920 constituted the following percentages of the total population: Atlanta 31, Baltimore 15, Birmingham 26, Dallas 15, Fort Worth 14, Houston 25, Kansas City, Kans., 14, Louisville 17, Memphis 38, Nashville 30, New Orleans 26, Norfolk 28, Richmond 32, and Washington, D. C., 25.



Deaths from all causes in certain large cities of the United States during the week ended February 27, 1926, infant mortality, annual death rate, and comparison with corresponding week of 1925. (From the Weekly Health Index, March 2, 1926, issued by the Bureau of the Census, Department of Commerce)—Continued

City	Week ended Feb. 27, 1926		Annual death rate per 1,000 corresponding week 1925	Deaths under 1 year		Infant mortality rate week ended Feb. 27, 1926
	Total deaths	Death rate		Week ended Feb. 27, 1926	Corresponding week 1925	
Nashville <sup>4</sup> .....	48	18.4	16.8	7	8	-----
White.....	32			7		-----
Colored.....	16	( <sup>5</sup> )		0		-----
New Bedford.....	22	9.6	15.3	7	8	122
New Haven.....	40	11.7	15.7	4	7	55
New Orleans.....	197	24.8	22.1	12	14	-----
White.....	109			3		-----
Colored.....	88	( <sup>5</sup> )		9		-----
New York.....	1,809	16.1	13.1	213	178	86
Bronx Borough.....	196	11.7	9.8	14	15	46
Brooklyn Borough.....	610	14.4	11.6	74	57	75
Manhattan Borough.....	802	21.5	17.5	99*	88	109
Queens Borough.....	148	10.8	9.1	24	15	109
Richmond Borough.....	53	20.0	16.6	2	3	35
Newark, N. J.....	124	14.3	12.3	18	12	86
Norfolk.....	48			6	6	112
White.....	26			1		30
Colored.....	22	( <sup>5</sup> )		5		249
Oakland.....	65	13.4	14.2	11	3	127
Oklahoma City.....	28			4	4	-----
Omaha.....	68	16.8	14.8	7	2	73
Paterson.....	42	15.5	12.1	6	3	104
Philadelphia.....	789	20.8	14.0	70	63	93
Pittsburgh.....	178	14.7	14.4	24	14	80
Portland, Oreg.....	66	12.2	12.7	4	5	41
Providence.....	83	16.2	14.0	7	14	58
Richmond.....	128	33.8	16.5	8	3	101
White.....	84			4		78
Colored.....	44	( <sup>5</sup> )		4		140
Rochester.....	90	14.8	11.2	12	5	96
St. Louis.....	240	15.2	14.7	20	12	-----
St. Paul.....	61	12.9	11.9	5	5	44
Salt Lake City <sup>4</sup> .....	39	15.5	13.1	4	1	55
San Antonio.....	85	22.4	15.8	15	7	-----
San Diego.....	54	26.6	18.7	3	1	63
San Francisco.....	164	15.3	12.2	15	10	90
Schenectady.....	21	11.8	16.9	4	4	115
Seattle.....	75			5	3	46
Somerville.....	20	10.5	12.1	3	4	78
Spokane.....	40	19.2	11.0	3	3	70
Springfield, Mass.....	35	12.8	13.2	5	6	72
Syracuse.....	44	12.6	14.6	10	6	126
Tacoma.....	24	12.0	13.5	1	3	23
Toledo.....	80	14.5	15.8	10	8	97
Trenton.....	50	19.7	14.6	8	6	134
Washington, D. C.....	225	23.6	16.4	21	20	119
White.....	139			10		83
Colored.....	86	( <sup>5</sup> )		11		201
Waterbury.....	26			5	4	107
Wilmington, Del.....	71	30.3	15.4	7	5	164
Worcester.....	46	12.6	11.5	4	7	46
Yonkers.....	24	11.0	15.1	5	4	112
Youngstown.....	28	9.1	14.7	4	8	51

See footnotes 4 and 5, on p. 474.

# PREVALENCE OF DISEASE

*No health department, State or local, can effectively prevent or control disease without knowledge of when, where, and under what conditions cases are occurring*

## UNITED STATES

### CURRENT WEEKLY STATE REPORTS

These reports are preliminary, and the figures are subject to change when later returns are received by the State health officers

#### Reports for Week Ended March 6, 1926

ALABAMA		Cases	CALIFORNIA		Cases
Chicken pox.....		57	Cerebrospinal meningitis.....		
Diphtheria.....		10	Sacramento.....		1
Influenza.....		1,956	San Francisco.....		1
Malaria.....		3	Chicken pox.....		508
Measles.....		336	Diphtheria.....		101
Mumps.....		44	Influenza.....		136
Pellagra.....		3	Measles.....		107
Pneumonia.....		189	Mumps.....		264
Scarlet fever.....		31	Poliomyelitis:		
Smallpox.....		25	Alhambra.....		1
Tuberculosis.....		224	Los Angeles.....		1
Typhoid fever.....		13	Oakland.....		1
Whooping cough.....		21	Scarlet fever.....		173
ARIZONA			Smallpox:		
Chicken pox.....		7	Brawley.....		16
Diphtheria.....		2	Los Angeles.....		72
Influenza.....		11	Los Angeles County.....		18
Measles.....		2	Oakland.....		14
Mumps.....		8	Scattering.....		40
Pellagra.....		2	Typhoid fever.....		5
Pneumonia.....		2	Whooping cough.....		55
Scarlet fever.....		5	COLORADO		
Tuberculosis.....		18	Chicken pox.....		121
Typhoid fever.....		3	Diphtheria.....		27
Whooping cough.....		3	Impetigo contagiosa.....		1
ARKANSAS			Influenza.....		18
Chicken pox.....		20	Measles.....		33
Diphtheria.....		9	Mumps.....		3
Hookworm disease.....		1	Pneumonia.....		20
Influenza.....		557	Scabies.....		1
Malaria.....		28	Scarlet fever.....		47
Measles.....		20	Smallpox.....		2
Mumps.....		19	Tuberculosis.....		43
Paratyphoid fever.....		1	Typhoid fever.....		5
Pellagra.....		5	Whooping cough.....		107
Scarlet fever.....		10	DELAWARE		
Smallpox.....		4	Anthrax.....		1
Trachoma.....		2	Chicken pox.....		4
Tuberculosis.....		10	Diphtheria.....		3
Typhoid fever.....		8	Influenza.....		15
Whooping cough.....		39	Measles.....		125

DELAWARE—continued	Cases
Pneumonia.....	9
Scarlet fever.....	3
Tuberculosis.....	1
Whooping cough.....	6

FLORIDA	Cases
Chicken pox.....	51
Diphtheria.....	20
German measles.....	1
Influenza.....	175
Malaria.....	1
Measles.....	35
Mumps.....	27
Pneumonia.....	16
Scarlet fever.....	11
Smallpox.....	182
Tetanus.....	1
Tuberculosis.....	7
Typhoid fever.....	8
Whooping cough.....	12

GEORGIA	Cases
Anthrax.....	1
Cerebrospinal meningitis.....	1
Chicken pox.....	73
Dengue.....	1
Diphtheria.....	7
Dysentery.....	3
Influenza.....	1, 107
Malaria.....	14
Measles.....	80
Mumps.....	37
Paratyphoid fever.....	5
Pellagra.....	13
Pneumonia.....	104
Scarlet fever.....	6
Septic sore throat.....	12
Smallpox.....	16
Tuberculosis.....	9
Typhoid fever.....	5
Whooping cough.....	40

IDAHO	Cases
Cerebrospinal meningitis:	
American Falls.....	1
Hayden Lake.....	2
Idaho Falls.....	2
Pocatello.....	2
Post Falls.....	2
Wallace.....	1
Chicken pox.....	14
Diphtheria.....	5
Influenza.....	2
Measles.....	4
Mumps.....	12
Scarlet fever.....	10
Smallpox.....	9
Typhoid fever.....	1
Whooping cough.....	13

ILLINOIS	Cases
Cerebrospinal meningitis:	
Cook County.....	1
Du Page County.....	1
Diphtheria.....	107
Influenza.....	123
Measles.....	933

ILLINOIS—continued	Cases
Pneumonia.....	596
Polioomyelitis:	
Jasper County.....	1
Kendall County.....	1
Scarlet fever.....	464
Smallpox.....	28
Tuberculosis.....	231
Typhoid fever.....	15
Whooping cough.....	247

INDIANA	Cases
Chicken pox.....	91
Diphtheria.....	30
Influenza.....	217
Measles.....	1, 790
Mumps.....	1
Pneumonia.....	68
Scarlet fever.....	230
Smallpox.....	98
Trachoma.....	2
Tuberculosis.....	56
Typhoid fever.....	5
Whooping cough.....	64

KANSAS	Cases
Cerebrospinal meningitis—Phillipsburg.....	1
Chicken pox.....	119
Diphtheria.....	23
Influenza.....	102
Measles.....	243
Mumps.....	19
Pneumonia.....	75
Polioomyelitis—Ottawa.....	1
Scarlet fever.....	77
Smallpox.....	16
Trachoma.....	2
Tuberculosis.....	43
Typhoid fever.....	3
Whooping cough.....	148

LOUISIANA	Cases
Cerebrospinal meningitis.....	2
Diphtheria.....	20
Influenza.....	519
Leprosy.....	1
Lethargic encephalitis.....	2
Malaria.....	8
Pneumonia.....	69
Scarlet fever.....	19
Smallpox.....	48
Tuberculosis.....	36
Typhoid fever.....	16

MAINE	Cases
Chicken pox.....	27
Diphtheria.....	1
German measles.....	9
Influenza.....	6
Lethargic encephalitis.....	1
Measles.....	123
Mumps.....	38
Pneumonia.....	22
Polioomyelitis.....	1
Scarlet fever.....	24
Septic sore throat.....	1
Tuberculosis.....	15

MAINE—continued		Cases	MISSISSIPPI		Cases
Typhoid fever.....		4	Diphtheria.....		9
Vincent's angina.....		2	Influenza.....		1,149
Whooping cough.....		20	Scarlet fever.....		1
			Smallpox.....		6
			Typhoid fever.....		3
MARYLAND <sup>1</sup>			MISSOURI		
Cerebrospinal meningitis.....		1	Cerebrospinal meningitis.....		1
Chicken pox.....		115	Chicken pox.....		106
Diphtheria.....		24	Diphtheria.....		88
German measles.....		2	Influenza.....		31
Influenza.....		291	Measles.....		360
Lethargic encephalitis.....		2	Mumps.....		64
Measles.....		1,298	Ophthalmia neonatorum.....		1
Mumps.....		197	Rabies (in animals).....		3
Ophthalmia neonatorum.....		1	Scarlet fever.....		295
Pneumonia (broncho).....		102	Smallpox.....		14
Pneumonia (lobar).....		75	Trachoma.....		3
Scarlet fever.....		55	Tuberculosis.....		48
Septic sore throat.....		2	Whooping cough.....		42
Tuberculosis.....		52			
Typhoid fever.....		1	MONTANA		
Whooping cough.....		69	Chicken pox.....		25
			Diphtheria.....		5
MASSACHUSETTS			German measles.....		13
Anthrax.....		2	Influenza.....		347
Cerebrospinal meningitis.....		1	Measles.....		8
Chicken pox.....		162	Mumps.....		142
Conjunctivitis (suppurative).....		8	Rocky Mountain spotted fever.....		1
Diphtheria.....		77	Scarlet fever.....		51
German measles.....		162	Smallpox.....		20
Influenza.....		31	Tuberculosis.....		3
Lethargic encephalitis.....		3	Typhoid fever.....		3
Measles.....		1,446	Whooping cough.....		9
Mumps.....		121			
Ophthalmia neonatorum.....		31	NEBRASKA		
Pneumonia (lobar).....		133	Cerebrospinal meningitis.....		2
Scarlet fever.....		281	Chicken pox.....		33
Septic sore throat.....		2	Diphtheria.....		4
Tuberculosis (pulmonary).....		111	Measles.....		15
Tuberculosis (other forms).....		38	Mumps.....		3
Typhoid fever.....		5	Scarlet fever.....		43
Whooping cough.....		514	Smallpox.....		22
			Tuberculosis.....		3
MICHIGAN			Typhoid fever.....		1
Diphtheria.....		73	Whooping cough.....		22
Measles.....		2,126			
Pneumonia.....		249	NEW JERSEY		
Scarlet fever.....		304	Cerebrospinal meningitis.....		1
Smallpox.....		2	Chicken pox.....		220
Tuberculosis.....		48	Diphtheria.....		77
Typhoid fever.....		12	Influenza.....		202
Whooping cough.....		245	Malaria.....		1
			Measles.....		2,135
MINNESOTA			Pneumonia.....		338
Chicken pox.....		145	Scarlet fever.....		196
Diphtheria.....		39	Typhoid fever.....		6
Influenza.....		1	Whooping cough.....		127
Lethargic encephalitis.....		1			
Measles.....		151	NEW MEXICO		
Pneumonia.....		2	Chicken pox.....		11
Scarlet fever.....		432	Conjunctivitis.....		2
Smallpox.....		1	Diphtheria.....		17
Tuberculosis.....		49	Influenza.....		72
Typhoid fever.....		1			
Whooping cough.....		84			

<sup>1</sup> Week ended Friday.

NEW MEXICO—continued		Cases	OREGON—continued		Cases
Malaria	.....	1	Septic sore throat	.....	1
Measles	.....	4	Smallpox:		
Mumps	.....	11	Linn County	.....	12
Pneumonia	.....	24	Portland	.....	15
Scarlet fever	.....	12	Scattering	.....	19
Smallpox	.....	4	Tuberculosis	.....	3
Tuberculosis	.....	6	Typhoid fever	.....	3
Typhoid fever	.....	1	Whooping cough	.....	45
Whooping cough	.....	18			
NEW YORK			PENNSYLVANIA		
(Exclusive of New York City)			Cerebrospinal meningitis:		
Cerebrospinal meningitis	.....	4	Manheim Township <sup>1</sup>	.....	1
Chicken pox	.....	342	Philadelphia	.....	1
Diphtheria	.....	52	Chicken pox	.....	896
German measles	.....	204	Diphtheria	.....	236
Influenza	.....	667	German measles	.....	59
Lethargic encephalitis	.....	3	Impetigo contagiosa	.....	9
Measles	.....	1,259	Lethargic encephalitis		
Mumps	.....	201	Bethlehem	.....	1
Pneumonia	.....	452	Philadelphia	.....	1
Poliomyelitis	.....	3	Pittsburgh	.....	1
Scarlet fever	.....	237	Measles	.....	4,106
Septic sore throat	.....	9	Mumps	.....	174
Typhoid fever	.....	12	Pneumonia	.....	123
Vincent's angina	.....	10	Poliomyelitis—Oil City	.....	1
Whooping cough	.....	498	Scabies	.....	13
			Scarlet fever	.....	734
NORTH CAROLINA			Smallpox	.....	6
Chicken pox	.....	208	Tetanus—Philadelphia	.....	1
Diphtheria	.....	32	Tuberculosis	.....	105
German measles	.....	255	Whooping cough	.....	415
Measles	.....	191			
Scarlet fever	.....	41	SOUTH DAKOTA		
Septic sore throat	.....	1	Chicken pox	.....	15
Smallpox	.....	27	Diphtheria	.....	9
Whooping cough	.....	191	Measles	.....	22
			Mumps	.....	77
OKLAHOMA			Pneumonia	.....	6
(Exclusive of Tulsa and Oklahoma City)			Scarlet fever	.....	102
Chicken pox	.....	36	Smallpox	.....	4
Diphtheria	.....	22	Typhoid fever	.....	1
Influenza	.....	1,539	Whooping cough	.....	1
Malaria	.....	20			
Measles	.....	10	TENNESSEE		
Mumps	.....	8	Chicken pox	.....	65
Pellagra	.....	3	Diphtheria	.....	14
Pneumonia	.....	201	Influenza	.....	424
Poliomyelitis—Lincoln County	.....	2	Malaria	.....	4
Scarlet fever	.....	65	Measles	.....	444
Smallpox	.....	40	Mumps	.....	15
Typhoid fever	.....	4	Ophthalmia neonatorum	.....	1
Whooping cough	.....	58	Pneumonia	.....	172
			Poliomyelitis—Dyer County	.....	1
OREGON			Scarlet fever	.....	30
Cerebrospinal meningitis	.....	4	Smallpox	.....	5
Chicken pox	.....	51	Tuberculosis	.....	44
Diphtheria	.....	17	Typhoid fever	.....	1
Influenza	.....	251	Whooping cough	.....	30
Measles	.....	40			
Mumps	.....	30	TEXAS		
Pneumonia	.....	24	Anthrax	.....	1
Rocky Mountain spotted fever	.....	1	Cerebrospinal meningitis	.....	1
Scarlet fever	.....	28	Chicken pox	.....	107
			Diphtheria	.....	39
			Dysentery	.....	1
			Influenza	.....	3,523

<sup>1</sup> Deaths.<sup>2</sup> County not specified.

TEXAS—continued		WASHINGTON—continued	
	Cases		Cases
Measles.....	7	Typhoid fever.....	6
Mumps.....	26	Whooping cough.....	71
Pellagra.....	1		
Pneumonia.....	84	WEST VIRGINIA	
Scarlet fever.....	36	Diphtheria.....	6
Smallpox.....	61	Measles.....	136
Tuberculosis.....	35	Scarlet fever.....	21
Typhoid fever.....	3	Smallpox.....	2
Typhus fever.....	3	Typhoid fever.....	3
Whooping cough.....	49		
UTAH		WISCONSIN	
Chicken pox.....	42	Milwaukee:	
Diphtheria.....	13	Chicken pox.....	69
Influenza.....	14	Diphtheria.....	16
Measles.....	2	German measles.....	4
Mumps.....	28	Measles.....	60
Pneumonia.....	4	Mumps.....	38
Scarlet fever.....	8	Pneumonia.....	14
Smallpox.....	1	Scarlet fever.....	18
Whooping cough.....	77	Tuberculosis.....	11
VERMONT		Whooping cough.....	56
Chicken pox.....	31	Scattering:	
Measles.....	10	Chicken pox.....	124
Mumps.....	28	Diphtheria.....	26
Scarlet fever.....	14	German measles.....	172
Whooping cough.....	46	Influenza.....	103
WASHINGTON		Measles.....	351
Cerebrospinal meningitis:		Mumps.....	184
Seattle.....	20	Ophthalmia neonatorum.....	1
Spokane.....	9	Pneumonia.....	29
Scattering.....	3	Scarlet fever.....	155
Chicken pox.....	88	Smallpox.....	15
Diphtheria.....	32	Trachoma.....	3
German measles.....	99	Tuberculosis.....	23
Measles.....	41	Typhoid fever.....	2
Mumps.....	127	Whooping cough.....	156
Pneumonia.....	3		
Scarlet fever.....	101	WYOMING	
Smallpox:		Chicken pox.....	2
Seattle.....	10	Influenza.....	38
Scattering.....	66	Mumps.....	8
Tuberculosis.....	5	Pneumonia (broncho).....	2
		Pneumonia (lobar).....	2
		Rocky Mountain spotted fever.....	1
		Scarlet fever.....	10
		Whooping cough.....	6

## Report for Week Ended February 27, 1926

## DISTRICT OF COLUMBIA

	Cases		Cases
Chicken pox.....	44	Scarlet fever.....	32
Diphtheria.....	9	Tuberculosis.....	25
Influenza.....	58	Typhoid fever.....	1
Measles.....	122	Whooping cough.....	30
Pneumonia.....	172		

## SUMMARY OF MONTHLY REPORTS FROM STATES

The following summary of monthly State reports is published weekly and covers only those States from which reports are received during the current week:

State	Cerebro-spinal meningitis	Diphtheria	Influenza	Malaria	Measles	Polio-myelitis	Scarlet fever	Small-pox	Typhoid fever	
<i>January, 1926</i>										
Mississippi-----	1	94	11,801	2,063	1,398	210	3	65	91	53
Missouri-----	3	376	145	13	229	-----	1	1,030	48	18
Montana-----	0	27	22	0	31	-----	0	147	46	2
Oregon-----	16	109	166	0	65	-----	1	224	313	22
South Carolina-----	2	136	5,123	281	1	-----	0	46	52	50
South Dakota-----	0	33	-----	0	20	-----	6	442	35	4
Washington-----	12	70	7	0	66	-----	2	433	426	9

## PLAGUE ERADICATIVE MEASURES IN THE UNITED STATES

The following items were taken from the reports of plague eradication measures from Los Angeles, Calif.:

Week ended February 20, 1926:

Number of rats trapped.....	2,396
Number of rats found to be plague infected.....	0
Number of squirrels examined.....	790
Number of squirrels found to be plague infected.....	0
Number of mice trapped.....	3,312
Number of mice found to be plague infected.....	0

Date of discovery of last plague-infected rodent, Nov. 6, 1925.

Date of last human case, Jan. 15, 1925.

## GENERAL CURRENT SUMMARY AND WEEKLY REPORTS FROM CITIES

*Diphtheria.*—For the week ended February 20, 1926, 36 States reported 1,244 cases of diphtheria. For the week ended February 21, 1925, the same States reported 1,640 cases of this disease. One hundred cities, situated in all parts of the country and having an aggregate population of more than 30,300,000, reported 797 cases of diphtheria for the week ended February 20, 1926. Last year for the corresponding week they reported 878 cases. The estimated expectancy for these cities was 1,049 cases. The estimated expectancy is based on the experience of the last nine years, excluding epidemics.

*Measles.*—Thirty-three States reported 16,651 cases of measles for the week ended February 20, 1926, and 3,496 cases of this disease for the week ended February 21, 1925. One hundred cities reported 11,566 cases of measles for the week this year, and 2,104 cases last year.

*Poliomyelitis.*—The health officers of 36 States reported 14 cases of poliomyelitis for the week ended February 20, 1926. The same States reported 17 cases for the week ended February 21, 1925.

*Scarlet fever.*—Scarlet fever was reported for the week as follows: Thirty-six States—this year, 3,934 cases; last year, 4,361 cases; 100

cities—this year, 1,800 cases; last year, 2,149 cases; estimated expectancy, 1,235 cases.

*Smallpox.*—For the week ended February 20, 1926, 36 States reported 944 cases of smallpox. Last year for the corresponding week they reported 1,250 cases. One hundred cities reported smallpox for the week as follows: 1926, 237 cases; 1925, 366 cases; estimated expectancy, 134 cases. Eighteen deaths from smallpox were reported by these cities for the week this year— at Los Angeles, Calif.

*Typhoid fever.*—One hundred and seventy-seven cases of typhoid fever were reported for the week ended February 20, 1926, by 35 States. For the corresponding week of 1925, the same States reported 289 cases of this disease. One hundred cities reported 38 cases of typhoid fever for the week this year and 60 cases for the corresponding week last year. The estimated expectancy for these cities was 48 cases.

*Influenza and pneumonia.*—Deaths from influenza and pneumonia were reported for the week by 93 cities, with a population of more than 29,600,000, as follows: 1926, 1,766 deaths; 1925, 1,323.

*City reports for week ended February 20, 1926*

The "estimated expectancy" given for diphtheria, poliomyelitis, scarlet fever, smallpox, and typhoid fever is the result of an attempt to ascertain from previous occurrence how many cases of the disease under consideration may be expected to occur during a certain week in the absence of epidemics. It is based on reports to the Public Health Service during the past nine years. It is in most instances the median number of cases reported in the corresponding week of the preceding years. When the reports include several epidemics or when for other reasons the median is unsatisfactory, the epidemic periods are excluded and the estimated expectancy is the mean number of cases reported for the week during nonepidemic years.

If reports have not been received for the full nine years, data are used for us many years as possible, but no year earlier than 1917 is included. In obtaining the estimated expectancy, the figures are smoothed when necessary to avoid abrupt deviations from the usual trend. For some of the diseases given in the table the available data were not sufficient to make it practicable to compute the estimated expectancy.

Division, State, and city	Population July 1, 1925, estimated	Chicken pox, cases reported	Diphtheria		Influenza		Measles, cases reported	Mumps, cases reported	Pneumonia, deaths reported
			Cases, estimated expectancy	Cases reported	Cases reported	Deaths reported			
NEW ENGLAND									
Maine:									
Portland.....	75,333	2	2	0	0	0	5	4	2
New Hampshire:									
Concord.....	22,546	0	0	3	0	0	13	0	2
Manchester.....	52,067	0	3	1	0	0	0	0	3
Vermont:									
Barre.....	10,008	0	0	0	0	0	0	0	0
Massachusetts:									
Boston.....	779,620	49	65	18	3	0	103	24	28
Fall River.....	128,993	2	5	1	1	1	25	1	3
Springfield.....	142,065	10	4	1	0	0	103	0	1
Worcester.....	190,787	4	4	6	0	0	34	2	6
Rhode Island:									
Pawtucket.....	69,790	1	1	2	0	0	90	0	6
Providence.....	267,918	0	12	5	0	0	389	0	8
Connecticut:									
Bridgeport.....	(1)	3	9	6	2	0	55	0	8
Hartford.....	160,197	2	9	0	0	0	123	0	7
New Haven.....	178,927	30	3	1	0	0	26	1	3

<sup>1</sup>No estimate made.



## City reports for week ended February 20, 1926—Continued

Division, State, and city	Population July 1, 1925, estimated	Chicken pox, cases reported	Diphtheria		Influenza		Measles, cases reported	Mumps, cases reported	Pneumonia, deaths reported
			Cases, estimated expectancy	Cases reported	Cases reported	Deaths reported			
MIDDLE ATLANTIC									
New York:									
Buffalo	538,016	35	17	16	1	1	13	2	22
New York	5,873,356	225	218	144	111	30	2,673	49	348
Rochester	316,786	28	8	15	6	0	61	0	7
Syracuse	182,003	23	7	0	0	0	40	58	4
New Jersey:									
Camden	128,642	10	5	5	2	3	13	0	13
Newark	452,513	77	20	6	9	1	497	6	18
Trenton	132,020	6	5	4	1	2	4	0	6
Pennsylvania:									
Philadelphia	1,979,364	169	80	66	-----	14	514	16	125
Pittsburgh	631,563	54	21	9	1	4	24	2	38
Reading	112,707	14	3	0	0	0	5	7	0
EAST NORTH CENTRAL									
Ohio:									
Cincinnati	408,333	9	9	8	0	5	3	0	11
Cleveland	936,485	75	31	46	3	3	1,877	1	27
Columbus	279,836	30	4	1	0	1	207	0	7
Toledo	287,380	53	7	8	0	2	48	0	5
Indiana:									
Fort Wayne	97,846	10	3	0	0	1	0	0	0
Indianapolis	358,819	30	9	6	0	1	855	2	15
South Bend	80,091	7	1	1	0	0	3	0	1
Terre Haute	71,071	0	1	0	0	0	1	0	2
Illinois:									
Chicago	2,995,239	116	107	51	10	3	151	20	107
Peoria	81,564	7	1	0	0	0	8	23	3
Springfield	63,923	14	2	1	1	1	9	7	5
Michigan:									
Detroit	1,245,824	74	57	57	6	0	1,553	11	69
Flint	130,316	9	6	3	8	0	12	0	5
Grand Rapids	153,698	6	3	1	0	1	9	0	1
Wisconsin:									
Madison	46,385	-----	0	-----	0	0	49	30	13
Milwaukee	509,192	86	17	18	0	0	1	5	2
Racine	67,707	6	2	3	0	0	0	0	0
Superior	39,671	0	1	0	0	0	0	0	0
WEST NORTH CENTRAL									
Minnesota:									
Duluth	110,502	13	2	0	0	0	3	0	2
Minneapolis	425,435	89	18	15	0	1	85	3	11
St. Paul	246,001	49	13	6	0	1	10	10	8
Iowa:									
Davenport	(0)	1	0	0	0	-----	0	0	-----
Des Moines	(0)	0	4	3	0	-----	1	0	-----
Sioux City	(0)	1	2	0	0	-----	0	1	-----
Waterloo	36,771	4	0	0	0	-----	26	1	-----
Missouri:									
Kansas City	367,481	23	8	4	5	5	119	4	13
St. Joseph	78,342	1	2	2	0	0	2	0	2
St. Louis	821,543	34	44	74	0	-----	37	3	-----
North Dakota:									
Fargo	26,403	4	1	0	0	0	0	31	2
Grand Forks	14,811	1	1	0	0	-----	3	0	-----
South Dakota:									
Aberdeen	15,036	2	1	0	0	-----	37	86	-----
Sioux Falls	30,127	2	1	0	0	0	4	0	0
Nebraska:									
Lincoln	60,941	3	1	1	0	0	0	1	2
Omaha	211,768	16	5	1	0	0	24	1	10
Kansas:									
Topeka	55,411	5	2	0	0	0	15	0	2
Wichita	88,367	7	4	0	0	2	14	0	10

No estimate made.

## City reports for week ended February 20, 1926—Continued

Division, State, and city	Population July 1, 1925, estimated	Chicken pox, cases reported	Diphtheria		Influenza		Measles, cases reported	Mumps, cases reported	Pneumonia, deaths reported
			Cases, estimated expectancy	Cases reported	Cases reported	Deaths reported			
SOUTH ATLANTIC									
Delaware:									
Wilmington.....	122, 019	9	2	3	0	0	238	0	0
Maryland:									
Baltimore.....	796, 296	80	29	15	202	39	1, 313	188	70
Cumberland.....	33, 741	0	1	0	2	1	1	0	3
Frederick.....	12, 035	0	1	1	0	1	4	0	1
District of Columbia:									
Washington.....	497, 906	21	15	25	30	5	31	0	65
Virginia:									
Lynchburg.....	30, 395	28	1	0	0	0	0	2	4
Norfolk.....	(1)	21	2	1	0	0	0	2	7
Richmond.....	186, 403	4	3	4	0	12	8	5	30
Roanoke.....	58, 208	2	1	1	0	0	30	1	3
West Virginia:									
Charleston.....	49, 019	2	2	0	0	1	3	0	0
Huntington.....	63, 485	0	1	0	0	0	9	0	2
Wheeling.....	56, 208	1	1	1	0	0	1	0	5
North Carolina:									
Raleigh.....	30, 371	3	1	0	0	2	4	0	4
Wilmington.....	37, 061	26	0	0	0	1	0	1	3
Winston-Salem.....	69, 031	18	1	0	0	0	109	2	2
South Carolina:									
Charleston.....	73, 125	0	0	0	30	1	0	0	3
Columbia.....	41, 225	5	1	0	0	0	0	3	0
Greenville.....	27, 311	2	0	1	0	0	0	2	0
Georgia:									
Atlanta.....	(1)	3	3	3	227	9	7	0	34
Brunswick.....	16, 809	1	0	0	0	0	0	0	0
Savannah.....	93, 134	1	1	0	40	0	2	0	6
Florida:									
St. Petersburg.....	26, 847		0			0			3
Tampa.....	94, 743	4	2	1	1	1	3	0	10
EAST SOUTH CENTRAL									
Kentucky:									
Covington.....	58, 309	0	1	0	0	0	0	0	2
Louisville.....	305, 935	6	6	2	6	0	35	1	9
Tennessee:									
Memphis.....	174, 533	68	4	5	0	8	6	4	21
Nashville.....	136, 220	3	1	1	0	8	139	0	10
Alabama:									
Birmingham.....	205, 670	14	2	2	49	10	5	2	14
Mobile.....	65, 955	0	1	0	0	5	0	0	1
Montgomery.....	46, 481	3	1	1	9	0	0	17	0
WEST SOUTH CENTRAL									
Arkansas:									
Fort Smith.....	31, 643	2	0	0	0		0	0	
Little Rock.....	74, 216	0	1	0	8	1	1	0	2
Louisiana:									
New Orleans.....	414, 493	1	13	5	60	10	0	0	29
Shreveport.....	57, 857	3	0	1	0	0	0	1	4
Oklahoma:									
Oklahoma City.....	(1)	0	1	0	40	1	0	0	4
Texas:									
Dallas.....	194, 450	18	6	11	72	8	1	3	24
Galveston.....	48, 375	4	0	0	0	0	0	0	5
Houston.....	184, 954	1	2	3	0	4	0	0	25
San Antonio.....	198, 069	0	2	1	0	10	0	0	28
MOUNTAIN									
Montana:									
Billings.....	17, 971	2	1	0	0	0	2	5	0
Great Falls.....	29, 883	19	1	0	0	0	3	22	1
Helena.....	12, 037	0	0	0	0	0	0	0	2
Missoula.....	12, 668	4	0	0	52	1	0	2	0
Idaho:									
Boise.....	23, 042	0	0	1	0	6	0	0	0

<sup>1</sup> No estimate made.

## City reports for week ended February 20, 1926—Continued

Division, State, and city	Population July 1, 1925, estimated	Chicken pox, cases re-reported	Diphtheria		Influenza		Measles, cases re-reported	Mumps, cases re-reported	Pneumonia, deaths re-reported
			Cases, estimated expectancy	Cases re-reported	Cases re-reported	Deaths re-reported			
MOUNTAIN—continued									
Colorado:									
Denver.....	280,911	18	10	11	-----	10	10	1	15
Pueblo.....	43,787	4	2	3	0	0	0	0	0
New Mexico:									
Albuquerque.....	21,000	7	1	0	7	3	2	3	5
Arizona:									
Phoenix.....	38,669	1	0	0	0	0	0	0	6
Utah:									
Salt Lake City.....	130,948	23	2	9	0	0	0	17	0
Nevada:									
Reno.....	12,665	0	0	0	0	1	0	1	1
PACIFIC									
Washington:									
Seattle.....	(1)	39	7	7	0	-----	14	89	-----
Spokane.....	108,897	17	4	1	0	0	1	0	0
Tacoma.....	104,455	3	2	7	0	0	3	1	1
Oregon:									
Portland.....	282,383	19	7	10	6	3	6	9	13
California:									
Los Angeles.....	(1)	124	36	41	89	15	16	26	35
Sacramento.....	72,260	5	1	4	1	1	1	3	4
San Francisco.....	557,530	45	23	16	10	11	40	11	9

1 No estimate made.

Division, State, and city	Scarlet fever		Smallpox			Typhoid fever				Whoop- ing cough, cases re- ported	Deaths all causes
	Cases, esti- mated expect- ancy	Cases re- ported	Cases, esti- mated expect- ancy	Cases re- ported	Deaths re- ported	Tuber- culosis, deaths re- ported	Cases, esti- mated expect- ancy	Cases re- ported	Deaths re- ported		
NEW ENGLAND											
Maine:											
Portland.....	2	9	0	0	0	1	0	0	0	3	27
New Hampshire:											
Concord.....	1	0	0	0	0	0	0	0	0	0	13
Manchester ..	2	14	0	0	0	1	0	9	0	0	25
Vermont:											
Barre.....	0	0	0	0	0	2	0	0	0	0	6
Massachusetts:											
Boston.....	60	70	0	0	0	20	2	1	0	183	260
Fall River ..	4	2	0	0	0	0	0	0	0	4	29
Springfield ..	8	11	0	0	0	2	0	0	0	21	30
Worcester.....	10	9	0	0	0	3	0	1	0	7	49
Rhode Island:											
Pawtucket.....	1	1	0	0	0	0	0	0	0	2	29
Providence.....	9	7	0	0	0	2	0	0	0	2	81
Connecticut:											
Bridgeport.....	8	18	0	0	0	0	0	0	0	12	48
Hartford.....	6	5	0	0	0	3	0	1	0	3	43
New Haven.....	7	21	0	0	0	1	0	0	1	14	61
MIDDLE ATLANTIC											
New York:											
Buffalo.....	20	20	0	0	0	10	1	1	0	18	179
New York.....	248	171	0	0	0	137	8	4	1	74	1,861
Rochester.....	15	20	0	0	0	1	1	0	0	10	77
Syracuse.....	18	2	0	0	0	2	0	0	0	54	53
New Jersey:											
Camden.....	3	10	0	0	0	2	1	0	0	1	53
Newark.....	24	24	0	0	0	13	0	1	0	13	125
Trenton.....	4	7	0	0	0	5	0	0	0	2	43
Pennsylvania:											
Philadelphia.....	70	90	0	0	0	44	3	2	1	24	688
Pittsburgh.....	20	62	1	0	0	14	1	0	1	30	205
Reading.....	1	11	0	0	0	2	0	0	0	5	37

1 Pulmonary tuberculosis only.

## City reports for week ended February 20, 1926—Continued

Division, State, and city	Scarlet fever		Cases, esti- mated expect- ancy	Smallpox		Tuber- culosis, deaths re- ported	Typhoid fever			Whoop- ing cough, cases re- ported	Deaths, all causes
	Cases, esti- mated expect- ancy	Cases re- ported		Cases re- ported	Deaths re- ported		Cases esti- mated expect- ancy	Cases re- ported	Deaths re- ported		
EAST NORTH CENTRAL											
Ohio:											
Cincinnati.....	12	19	1	1	0	15	0	0	0	50	153
Cleveland.....	30	87	2	0	0	8	2	0	0	119	227
Columbus.....	10	25	1	2	0	2	0	0	0	1	72
Toledo.....	21	9	4	1	0	6	0	0	0	27	59
Indiana:											
Fort Wayne.....	4	4	1	0	0	3	0	0	0	0	28
Indianapolis.....	9	9	6	43	0	7	0	0	0	42	116
South Bend.....	3	2	1	3	0	1	0	0	0	2	11
Terre Haute.....	3	2	1	0	0	0	0	0	0	0	24
Illinois:											
Chicago.....	140	179	3	0	0	47	3	5	0	63	797
Peoria.....	5	5	1	0	0	0	0	0	0	6	12
Springfield.....	1	1	0	0	0	1	1	1	0	21	25
Michigan:											
Detroit.....	94	132	3	0	0	28	1	1	0	49	343
Flint.....	8	19	1	0	0	0	1	0	0	27	20
Grand Rapids.....	9	27	1	0	0	0	0	0	0	77	32
Wisconsin:											
Madison.....	3		1				0				
Milwaukee.....	34	27	3	0	0	9	0	1	0	46	151
Racine.....	5	4	1	0	0	0	1	0	0	30	12
Superior.....	2	4	3	0	0	0	0	0	0	1	7
WEST NORTH CENTRAL											
Minnesota:											
Duluth.....	4	20	1	0	0	1	0	0	0	15	30
Minneapolis.....	42	52	14	0	0	6	0	0	0	6	112
St. Paul.....	27	46	7	0	0	3	1	1	0	16	68
Iowa:											
Davenport.....	2	4	2	0			0	0		0	
Des Moines.....	7	2	2	1			0	0		0	
Sioux City.....	2	0	1	3			0	0		0	
Waterloo.....	2	0	1	2			0	0		5	
Missouri:											
Kansas City.....	13	32	2	0	0	6	0	0	0	20	95
St. Joseph.....	3	8	0	0	0	1	0	0	0	2	24
St. Louis.....	32	167	4	9	0	15	1	1	0	9	219
North Dakota:											
Fargo.....	2	1	1	0	0	0	0	1	0	1	12
Grand Forks.....	1	0	0	0			0	0		0	
South Dakota:											
Aberdeen.....	2	1	0	0			0	0		0	
Sioux Falls.....	3	2	1	0	0	0	0	0	0	0	6
Nebraska:											
Lincoln.....	3	0	1	0	0	2	0	0	0	11	15
Omaha.....	5	27	6	17	0	0	1	0	0	5	70
Kansas:											
Topeka.....	2	2	1	1	0	0	0	0	0	1	13
Wichita.....	3	3	1	0	0	2	0	0	0	4	40
SOUTH ATLANTIC											
Delaware:											
Wilmington.....	3	2	0	0	0	2	1	0	0	12	51
Maryland:											
Baltimore.....	44	29	1	0	0	20	2	1	2	33	352
Cumberland.....	0	0	1	0	0	2	0	0	0	0	11
Frederick.....	1	0	0	0	0	0	0	0	0	0	5
Dist. of Columbia:											
Washington.....	23	21	2	0	0	11	1	0	0	8	235
Virginia:											
Lynchburg.....	0	1	0	0	0	0	0	0	0	0	17
Norfolk.....	1	13	0	1	0	3	0	0	0	2	
Richmond.....	4	6	0	0	0	6	0	0	0	2	96
Roanoke.....	0	0	1	0	0	1	0	0	0	2	11
West Virginia:											
Charleston.....	0	0	0	0	0	0	0	0	0	5	7
Huntington.....	1	0	0	0	0	0	0	0	0	0	15
Wheeling.....	1	1	0	0	0	1	0	0	0	0	23
North Carolina:											
Raleigh.....	0	0	1	1	0	0	0	0	0	0	20
Wilmington.....	1	0	0	0	0	0	1	0	0	2	8
Winston-Salem.....	0	2	2	0	0	1	0	0	0	12	18

## City reports for week ended February 20, 1926—Continued

Division, State, and city	Scarlet fever		Smallpox			Tuber- culosis, deaths re- ported	Typhoid fever			Whoop- ing cough, cases re- ported	Deaths, all causes
	Cases, es- timated ex- pectancy	Cases re- ported	Cases, es- timated ex- pectancy	Cases re- ported	Deaths re- ported		Cases es- timated ex- pectancy	Cases re- ported	Deaths re- ported		
SOUTH ATLANTIC—continued											
South Carolina:											
Charleston.....	1	0	0	0	0	4	0	0	0	1	43
Columbia.....	0	0	0	0	0	0	0	0	0	0	—
Greenville.....	0	0	1	0	0	0	0	0	0	4	6
Georgia:											
Atlanta.....	4	2	2	4	0	6	0	0	0	3	120
Brunswick.....	0	0	0	0	0	0	0	1	0	0	4
Savannah.....	1	2	0	0	0	4	0	0	0	0	31
Florida:											
St. Petersburg.....	0	—	0	—	0	4	0	—	0	—	29
Tampa.....	0	1	0	21	0	2	1	0	0	0	52
EAST SOUTH CENTRAL											
Kentucky:											
Covington.....	2	0	0	0	0	6	1	0	0	0	24
Louisville.....	5	11	1	0	0	7	1	0	0	1	85
Tennessee:											
Memphis.....	3	22	3	15	0	5	0	0	0	2	86
Nashville.....	3	5	1	1	0	7	0	0	0	1	62
Alabama:											
Birmingham.....	2	6	6	4	0	7	0	1	0	9	91
Mobile.....	0	0	1	0	0	0	0	0	0	0	19
Montgomery.....	1	3	1	0	0	0	0	0	0	0	23
WEST SOUTH CENTRAL											
Arkansas:											
Fort Smith.....	1	1	1	0	—	—	0	0	—	1	—
Little Rock.....	1	7	0	0	0	0	0	0	0	0	—
Louisiana:											
New Orleans.....	5	6	2	6	0	16	2	4	1	1	234
Shreveport.....	0	0	3	1	0	3	0	1	0	0	27
Oklahoma:											
Oklahoma City.....	3	5	4	0	0	1	0	0	0	1	26
Texas:											
Dallas.....	2	5	3	3	0	5	0	0	0	11	83
Galveston.....	0	0	0	9	0	1	1	0	0	0	19
Houston.....	1	1	1	14	0	4	1	0	0	1	107
San Antonio.....	1	5	1	0	0	7	0	0	0	0	80
MOUNTAIN											
Montana:											
Billings.....	1	0	0	0	0	0	0	0	0	3	4
Great Falls.....	2	5	2	0	0	0	0	0	0	7	9
Helena.....	0	0	0	0	0	0	0	0	0	0	4
Missoula.....	0	0	0	0	0	0	0	0	0	3	6
Idaho:											
Boise.....	1	0	0	3	0	0	0	0	0	0	8
Colorado:											
Denver.....	12	16	3	0	0	10	0	2	1	43	94
Pueblo.....	1	2	0	0	0	1	1	0	0	0	7
New Mexico:											
Albuquerque.....	2	5	0	0	0	6	0	0	0	5	28
Arizona:											
Phoenix.....	1	1	0	0	0	5	0	0	0	0	18
Utah:											
Salt Lake City.....	4	3	2	0	0	1	1	0	0	21	28
Nevada:											
Reno.....	0	0	1	1	0	0	0	0	0	0	2
PACIFIC											
Washington:											
Seattle.....	11	41	3	11	—	—	0	0	—	4	—
Spokane.....	4	24	7	1	—	—	0	1	—	0	—
Tacoma.....	2	2	3	0	0	1	1	0	0	6	19
Oregon:											
Portland.....	6	14	12	13	0	2	0	1	0	4	74
California:											
Los Angeles.....	20	37	4	41	18	36	2	4	0	6	324
Sacramento.....	1	2	0	3	0	3	1	0	0	0	35
San Francisco.....	16	17	6	16	0	6	1	1	1	8	158

## City reports for week ended February 20, 1926—Continued

Division, State, and city	Cerebrospinal meningitis		Let hargie encephalitis		Pellagra		Poliomyelitis (infantile paralysis)		
	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases, estimated expectancy	Cases	Deaths
NEW ENGLAND									
Massachusetts:									
Boston.....	0	1	3	0	0	0	0	0	0
Springfield.....	0	0	1	0	0	0	0	0	0
MIDDLE ATLANTIC									
New York:									
Buffalo.....	0	0	0	0	0	0	0	1	1
New York.....	6	4	7	6	0	0	1	0	0
New Jersey:									
Newark.....	0	0	1	1	0	0	0	0	0
Pennsylvania:									
Philadelphia.....	1	0	1	0	0	0	0	0	0
EAST NORTH CENTRAL									
Illinois:									
Chicago.....	1	0	0	0	0	0	1	1	0
Michigan:									
Detroit.....	1	0	0	1	0	0	1	0	0
Wisconsin:									
Racine.....	1	1	0	0	0	0	0	0	0
WEST NORTH CENTRAL									
Missouri:									
St. Joseph.....	1	0	0	0	0	0	0	0	0
St. Louis.....	2	3	0	0	0	0	0	0	0
Nebraska:									
Omaha.....	0	0	1	1	0	0	0	0	0
Kansas:									
Wichita.....	0	0	0	0	0	0	0	1	0
SOUTH ATLANTIC									
Maryland:									
Baltimore.....	2	0	0	0	0	0	0	0	0
North Carolina:									
Winston-Salem.....	0	0	0	0	0	2	0	0	0
Georgia:									
Atlanta.....	0	0	0	0	0	1	0	0	0
Florida:									
Tampa.....	0	0	0	0	0	1	0	0	0
EAST SOUTH CENTRAL									
Kentucky:									
Louisville.....	0	0	1	0	0	0	0	0	0
Tennessee:									
Memphis.....	0	0	0	0	0	1	0	0	0
Alabama:									
Birmingham.....	0	0	1	1	0	0	0	0	0
WEST SOUTH CENTRAL									
Arkansas:									
Little Rock.....	0	1	0	0	0	0	0	0	0
Louisiana:									
New Orleans.....	1	1	0	0	1	1	0	0	0
Texas:									
Dallas.....	0	0	0	1	1	1	0	0	0
MOUNTAIN									
Montana:									
Great Falls.....	0	0	0	1	0	0	0	0	0
Utah:									
Salt Lake City.....	2	0	0	0	0	0	0	0	0
PACIFIC									
Washington:									
Seattle.....	4	0	0	0	0	0	0	0	0
Spokane.....	2	0	0	0	0	0	0	0	0
Oregon:									
Portland.....	1	1	0	1	0	0	0	0	0
California:									
Los Angeles.....	2	2	0	0	0	0	0	0	0
Sacramento.....	1	1	0	0	0	0	0	0	0
San Francisco.....	0	0	1	1	0	0	0	0	0

The following table gives the rates per 100,000 population for 103 cities for the five-week period ended February 20, 1926, compared with those for a like period ended February 21, 1925. The population figures used in computing the rates are approximate estimates as of July 1, 1925 and 1926, respectively, authoritative figures for many of the cities not being available. The 103 cities reporting cases had an estimated aggregate population of nearly 30,000,000 in 1925 and nearly 30,500,000 in 1926. The 96 cities reporting deaths had more than 29,250,000 estimated population in 1925 and more than 29,750,000 in 1926. The number of cities included in each group and the estimated aggregate populations are shown in a separate table below.

*Summary of weekly reports from cities, January 17 to February 20, 1926—Annual rates per 100,000 population—Compared with rates for the corresponding period of 1925*<sup>1</sup>

## DIPHTHERIA CASE RATES

	Week ended—									
	Jan. 24, 1925	Jan. 23, 1926	Jan. 31, 1925	Jan. 30, 1926	Feb. 7, 1925	Feb. 6, 1926	Feb. 14, 1925	Feb. 13, 1926	Feb. 21, 1925	Feb. 20, 1926
103 cities.....	159	142	<sup>2</sup> 160	142	<sup>2</sup> 169	<sup>4</sup> 134	<sup>3</sup> 163	<sup>5</sup> 136	153	<sup>6</sup> 137
New England.....	165	132	192	118	185	97	237	123	232	<sup>7</sup> 110
Middle Atlantic.....	174	137	155	130	170	129	164	140	162	132
East North Central.....	121	131	<sup>2</sup> 126	138	136	119	124	<sup>5</sup> 132	116	<sup>6</sup> 134
West North Central.....	193	206	243	245	247	<sup>4</sup> 220	251	<sup>4</sup> 170	203	<sup>4</sup> 204
South Atlantic.....	144	152	121	110	<sup>3</sup> 145	133	<sup>3</sup> 173	135	148	105
East South Central.....	74	73	89	42	58	42	63	47	74	57
West South Central.....	154	155	141	142	167	138	154	116	119	90
Mountain.....	231	155	129	264	185	127	92	173	157	218
Pacific.....	213	140	279	167	257	189	171	140	157	205

## MEASLES CASE RATES

103 cities.....	204	1,335	<sup>2</sup> 204	1,383	<sup>3</sup> 242	<sup>4</sup> 1,492	<sup>5</sup> 285	<sup>5</sup> 1,710	367	<sup>6</sup> 1,986
New England.....	479	2,672	467	2,751	556	2,408	637	2,347	695	<sup>7</sup> 2,706
Middle Atlantic.....	186	1,088	205	1,185	204	1,347	286	1,511	371	1,913
East North Central.....	352	2,068	<sup>2</sup> 340	2,083	415	2,152	479	<sup>5</sup> 2,633	637	<sup>5</sup> 2,899
West North Central.....	26	156	20	277	16	4,406	28	<sup>4</sup> 549	26	<sup>4</sup> 677
South Atlantic.....	36	2,477	35	2,280	<sup>4</sup> 46	2,579	<sup>4</sup> 62	3,112	104	3,276
East South Central.....	68	285	84	394	47	711	68	732	47	960
West South Central.....	13	13	13	26	35	34	48	13	13	9
Mountain.....	240	118	277	100	758	91	143	109	601	137
Pacific.....	52	65	17	73	58	105	28	167	61	202

## SCARLET FEVER CASE RATES

103 cities.....	356	292	<sup>2</sup> 346	287	<sup>3</sup> 397	<sup>4</sup> 298	<sup>5</sup> 385	<sup>5</sup> 298	376	<sup>6</sup> 300
New England.....	575	300	515	378	592	402	544	362	585	<sup>7</sup> 366
Middle Atlantic.....	325	237	299	235	372	209	406	197	374	268
East North Central.....	344	324	<sup>2</sup> 368	300	398	338	371	<sup>5</sup> 358	403	<sup>5</sup> 371
West North Central.....	780	699	756	661	844	<sup>4</sup> 749	695	<sup>4</sup> 777	719	<sup>4</sup> 777
South Atlantic.....	190	186	175	154	<sup>3</sup> 241	163	<sup>2</sup> 261	171	157	150
East South Central.....	168	202	200	100	89	119	104	114	205	244
West South Central.....	185	69	194	69	154	138	114	108	119	108
Mountain.....	296	373	250	255	324	155	370	218	240	237
Pacific.....	210	256	215	334	246	326	168	310	177	332

<sup>1</sup> The figures given in this table are rates per 100,000 population, annual basis, and not the number of cases reported. Populations used are estimated as of July 1, 1925, and 1926, respectively.

<sup>2</sup> Racine, Wis., not included.

<sup>3</sup> Wilmington, Del., not included.

<sup>4</sup> Sioux Falls, S. Dak., not included.

<sup>5</sup> Madison, Wis., and Sioux Falls, S. Dak., not included.

<sup>6</sup> Concord, N. H., Madison, Wis., and Sioux Falls, S. Dak., not included.

<sup>7</sup> Concord, N. H., not included.

<sup>8</sup> Madison, Wis., not included.

Summary of weekly reports from cities, January 17 to February 20, 1926—Annual rates per 100,000 population—Compared with rates for the corresponding period of 1925—Continued

## SMALLPOX CASE RATES

	Week ended—									
	Jan. 24, 1925	Jan. 23, 1926	Jan. 31, 1925	Jan. 30, 1926	Feb. 7, 1925	Feb. 6, 1926	Feb. 14, 1925	Feb. 13, 1926	Feb. 21, 1925	Feb. 20, 1926
103 cities .....	68	35	2 65	40	2 73	4 47	2 76	2 53	64	2 41
New England.....	0	0	0	0	0	0	0	0	0	7 0
Middle Atlantic.....	6	0	1	1	2	0	4	1	2	0
East North Central.....	45	33	2 33	43	36	16	33	2 23	52	2 34
West North Central.....	175	36	189	53	141	4 64	187	4 32	123	4 64
South Atlantic.....	35	56	42	58	2 58	101	2 92	81	63	51
East South Central.....	620	47	599	21	756	42	620	52	498	104
West South Central.....	31	99	57	125	119	155	132	112	79	142
Mountain.....	92	27	46	18	28	73	157	73	83	36
Pacific.....	199	194	168	205	254	324	210	461	204	194

## TYPHOID FEVER CASE RATES

103 cities.....	17	13	2 17	8	2 13	4 7	2 12	2 6	10	2 7
New England.....	19	9	7	9	29	14	19	5	0	7 7
Middle Atlantic.....	20	10	19	9	13	3	6	6	10	4
East North Central.....	10	3	2 10	4	8	3	6	2 4	6	2 5
West North Central.....	6	4	12	2	0	4 6	10	4	4	4 6
South Atlantic.....	12	8	35	9	2 16	13	2 20	15	8	4
East South Central.....	26	5	21	10	11	21	37	10	32	5
West South Central.....	40	151	57	17	22	4	44	0	40	22
Mountain.....	46	0	18	18	28	36	18	0	37	18
Pacific.....	14	16	3	11	17	16	11	13	22	16

## INFLUENZA DEATH RATES

96 cities.....	21	20	2 22	29	2 29	4 35	2 27	2 34	29	2 50
New England.....	10	7	26	17	46	12	26	19	17	7 2
Middle Atlantic.....	20	14	16	18	24	20	22	15	21	27
East North Central.....	17	8	2 11	12	12	12	16	2 11	17	2 11
West North Central.....	19	10	15	13	19	4 19	11	4 4	21	4 19
South Atlantic.....	21	39	36	36	2 44	68	2 52	64	52	137
East South Central.....	58	57	68	73	63	104	58	62	68	161
West South Central.....	87	94	77	151	92	180	116	302	146	298
Mountain.....	9	18	37	73	55	109	65	127	55	109
Pacific.....	11	39	18	78	36	67	4	35	11	96

## PNEUMONIA DEATH RATES

96 cities.....	202	190	2 198	193	2 214	4 206	2 212	2 213	207	2 260
New England.....	208	210	232	144	204	201	230	156	232	7 172
Middle Atlantic.....	233	227	229	217	252	213	230	212	215	289
East North Central.....	132	139	2 136	136	152	145	158	2 161	173	2 182
West North Central.....	117	81	114	108	106	4 125	133	4 78	127	4 127
South Atlantic.....	242	287	238	284	2 205	344	2 247	406	232	486
East South Central.....	294	228	278	208	299	249	289	223	294	296
West South Central.....	343	312	218	444	334	387	440	553	387	553
Mountain.....	314	273	305	164	185	228	298	328	203	173
Pacific.....	185	185	193	174	175	185	171	138	189	174

\* Racine, Wis., not included.

\* Wilmington, Del., not included.

\* Sioux Falls, S. Dak., not included.

\* Madison, Wis., and Sioux Falls, S. Dak., not included.

\* Concord, N. H., Madison, Wis., and Sioux Falls, S. Dak., not included.

\* Concord, N. H., not included.

\* Madison, Wis., not included.



*Number of cities included in summary of weekly reports, and aggregate population of cities in each group, approximated as of July 1, 1925 and 1926, respectively*

Group of cities	Number of cities reporting cases	Number of cities reporting deaths	Aggregate population of cities reporting cases		Aggregate population of cities reporting deaths	
			1925	1926	1925	1926
Total .....	103	96	29,944,996	30,473,129	29,251,658	29,764,201
New England.....	12	12	2,176,124	2,206,124	2,176,124	2,206,124
Middle Atlantic.....	10	10	10,346,970	10,476,970	10,346,970	10,476,970
East North Central.....	16	16	7,481,656	7,655,436	7,481,656	7,655,436
West North Central.....	14	11	2,594,962	2,634,662	2,461,380	2,499,036
South Atlantic.....	21	21	2,716,070	2,776,070	2,716,070	2,776,070
East South Central.....	7	7	993,103	1,004,953	993,103	1,004,953
West South Central.....	8	6	1,184,057	1,212,057	1,078,198	1,103,695
Mountain.....	9	9	563,912	572,773	563,912	572,773
Pacific.....	6	4	1,888,142	1,934,084	1,434,245	1,469,144

# FOREIGN AND INSULAR

## THE FAR EAST

*Report for week ended February 6, 1926.*—The following report for the week ended February 6, 1926, was transmitted by the Far Eastern Bureau of the health section of the League of Nations' secretariat, located at Singapore, to the headquarters at Geneva:

Port	Plague		Cholera		Small-pox		Port	Plague		Cholera		Small-pox	
	Cases	Deaths	Cases	Deaths	Cases	Deaths		Cases	Deaths	Cases	Deaths	Cases	Deaths
Calcutta.....	0	0	34	43	22		Nilgata.....	0	0	0	0	0	0
Bombay.....	0	0	0	14	4		Tsuruga.....	0	0	0	0	0	0
Madras.....	0	0	9	15	3		Hakodate.....	0	0	0	0	0	0
Rangoon.....	7	1	11	1	1		Keelung.....	0	0	0	0	0	0
Karachi.....	0	0	0	8	3		Fusan.....	0	0	0	0	0	0
Negapatam.....	0	0	11	0	0		Dalren.....	0	0	0	0	5	1
Colombo.....	0	0	0	3	0		Adelaide.....	0	0	0	0	0	0
Basra.....	0	0	0	6	6		Brisbane.....	0	0	0	0	0	0
Singapore.....	0	0	0	0	0		Fremantle.....	0	0	0	0	0	0
Port Swettenham.....	0	0	0	0	0		Melbourne.....	0	0	0	0	0	0
Penang.....	0	0	0	0	0		Sydney.....	0	0	0	0	0	0
Batavia.....	0	0	0	0	0		Rockhampton.....	0	0	0	0	0	0
Soerabaya.....	0	0	0	4	0		Townsville.....	0	0	0	0	0	0
Samarang.....	0	0	0	0	0		Port Darwin.....	0	0	0	0	0	0
Belawan Deli.....	0	0	0	0	0		Broome.....	0	0	0	0	0	0
Padang (Sumatra).....	0	0	0	0	0		Port Moresby.....	0	0	0	0	0	0
Sabang (Rhio).....	0	0	0	0	0		Auckland.....	0	0	0	0	0	0
Makassar.....	3	3	0	0	0		Wellington.....	0	0	0	0	0	0
Pontianak (Borneo).....	0	0	0	0	0		Christchurch.....	0	0	0	0	0	0
Sandakan (North Borneo).....	0	0	0	0	0		Invercargill.....	0	0	0	0	0	0
Kuching (Sarawak).....	0	0	0	31	1		Honolulu.....	0	0	0	0	0	0
Manila.....	0	0	1	0	0		Suez.....	0	0	0	0	3	0
Zamboanga.....	0	0	0	0	0		Alexandria.....	0	0	0	0	0	0
Bangkok.....	2	2	22	10	5		Port Said.....	0	0	0	0	0	0
Salgon and Cholon.....	0	0	0	1	0		Mombasa (Kenya).....	0	0	0	0	0	0
Haiphong.....	0	0	0	0	0		Massowah.....	0	0	0	0	0	0
Tourane.....	0	0	0	2	0		Djibuti.....	0	0	0	0	0	0
Hongkong.....	0	0	0	2	3		Berbera.....	0	0	0	0	0	0
Shanghai.....	0	0	0	18	0		Mozambique.....	0	0	0	0	0	0
Amoy.....	0	0	0	3	0		Lourenco Marques.....	0	0	0	0	0	0
Nagasaki.....	0	0	0	0	0		Durban.....	0	0	0	0	0	0
Yokohama.....	0	0	0	0	0		East London.....	0	0	0	0	0	0
Simonseski.....	0	0	0	0	0		Port Elizabeth.....	0	0	0	0	0	0
Moji.....	0	0	0	0	0		Cape Town.....	0	0	0	0	0	0
Kobe.....	0	0	0	0	0		Port Louis (Mauritius).....	0	0	0	0	0	0
Osaka.....	0	0	0	1	0		Seychelles.....	0	0	0	0	0	0

## BOLIVIA

*Conditions as regards prevalence of tuberculosis—Measures proposed—La Paz.*—Information received under date of February 4, 1925, shows that the Society of Medicine and Hygiene of La Paz, which is an organization of the local medical profession, has begun a movement through the press for prevention of the spread of tuberculosis in Bolivia. It was stated that the prevalence was especially among the Indian class of the population. In the high

and dry altitudes in which this class previously lived there was believed to be relatively little tuberculosis, but the influx of the Indian population of the highlands to the more thickly populated centers of the larger cities has apparently greatly increased the prevalence of this disease. It is proposed to establish a tuberculosis hospital at La Paz, to limit the number of persons living in a house, and to institute sanitary and hygienic improvements.

#### BULGARIA

*Typhoid fever—Sofia.*—During the week ended January 28, 1926, three cases of typhoid fever and one case of paratyphoid fever were reported at Sofia, Bulgaria.

#### CANADA

*Communicable diseases—Week ended February 20, 1926.*—The Canadian Ministry of Health reports certain communicable diseases in seven Provinces of Canada for the week ended February 20, 1926, as follows:

	Nova Scotia	New Brunswick	Quebec	Ontario	Mani- toba	Sas- katch- ewan	Alberta	Total
Cerebrospinal fever.....	-----	-----	1	1	-----	-----	-----	2
Influenza.....	25	-----	-----	-----	3	-----	-----	28
Lethargic encephalitis.....	-----	-----	-----	-----	1	-----	-----	1
Smallpox.....	-----	-----	-----	24	8	-----	-----	34
Typhoid fever.....	3	-----	6	5	2	-----	1	17

#### CANARY ISLANDS

*Plague.*—Information received under dates of January 6-20 and February 5, 1926, shows the occurrence of a death from plague at Las Palmas, January 5, 1926, and a case at Santa Cruz de Teneriffe, February 1, 1926.

*Public health service.*—Information dated December 31, 1925, shows that the public health service of the Canary Islands, which was centered up to October 15, 1925, at Santa Cruz de Teneriffe, has been divided and health organization for the eastern group of islands established independently at Las Palmas.

*Summary of plague at Las Palmas.*—Two cases of plague were reported at Las Palmas, December 18 and 24, 1925, both with fatal termination, and a plague death was reported January 5, 1926. Plague has been officially declared endemic at Las Palmas.

#### CHINA

*Anthrax—Paratyphoid fever—Shanghai—January 10-23, 1926.*—During the two weeks ended January 23, 1926, one case of anthrax

and one case of paratyphoid fever were reported at Shanghai, China, among the foreign population.

### ECUADOR

*Plague—Guayaquil—January 16-31, 1926.*—During the half month ended January 31, 1926, 19 cases of plague with 9 deaths were reported at Guayaquil, Ecuador.

*Plague-infected rats.*—During the same period, 12,808 rats were reported taken at Guayaquil, of which 154 rats were found plague infected.

*Communicable diseases—Quito—January, 1926.*—During the month of January, 1926, 355 cases of communicable diseases with 34 deaths were notified at Quito, Ecuador, distributed by cause as follows: Diphtheria, cases 2, deaths 2; dysentery, cases 150, deaths 15; influenza, cases 150, deaths 6; tuberculosis, pulmonary, cases 32, deaths 7; typhoid fever, cases 20, deaths 3. Of the typhoid fever deaths, two occurred at the lazaretto. Five of the cases of typhoid fever were from the country.

### GREAT BRITAIN

*Smallpox—South Shields.*—Under date of February 9, 1926, smallpox in a severe form was stated to be present at South Shields, England, including cases in the Arab quarter of the town. South Shields is situated on the Tyne River.

### JAPAN

*Smallpox—Yokohama.*—Information received February 23, 1926, shows seven cases of smallpox present at Yokohama.

### MEXICO

*General mortality—Mortality from communicable diseases—Tampico—Year 1925.*—During the year 1925 mortality from all causes and from communicable diseases was reported, by months, at Tampico, Mexico, as follows:

Disease	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
Diphtheria		1		1	1	1				1	2		7
Dysentery							2		2		6	3	22
Enteritis	29	17	49	127	86	84	110	97	54	39	61	64	817
Influenza	1	2	1	1									9
Malaria	4	2	5	3	7	6	19	19	11	33	32	17	158
Measles		3	15	29	14	9	2						72
Scarlet fever					2								2
Smallpox	6	9	3	2	1	3	2						26
Syphilis									7	3	3	1	14
Tetanus									5	3	8	5	21
Tuberculosis	22	28	23	26	27	26	22	27	20	20	19	24	294
Typhoid fever	5	6	15	23	15	13	17	31	7	12	11	1	159
Whooping cough		3			2	2	2					1	11
All other causes	159	124	161	181	136	110	123	104	115	152	179	145	1,689
Total	226	198	272	393	291	253	290	288	221	265	322	263	3,291

## CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER

The reports contained in the following tables must not be considered as complete or final as regards either the lists of countries included or the figures for the particular countries for which reports are given.

Reports Received During Week Ended March 12, 1926 <sup>1</sup>

## CHOLERA

Place	Date	Cases	Deaths	Remarks
Chosen	October	6		
India				Dec. 20-26, 1925: Cases, 2,743; deaths, 1,520.
Calcutta	Jan. 10-16	21	21	
Madras	Jan. 17-23	15	10	
Japan	Oct. 25-Nov. 28	82		
Siam				
Bangkok	Jan. 10-16	26	16	

## PLAGUE

British East Africa:				
Uganda	Nov. 1-30	82	75	
Canary Islands:				
Santa Cruz de Tenerife	Dec. 28-Feb. 1	3		
Celebes:				
Macassar	Dec. 29-Jan. 4	4	4	Netherlands East Indies.
Ceylon				
Colombo	Jan. 10-16	1	1	
Ecuador:				
Guayaquil	Jan. 16-31	19	9	Rats taken: 12,808; rats found plague infected, 154.
Greece:				
Athens	Jan. 1-31	14	3	
India				Dec. 20-26, 1926: Cases, 1,355; deaths, 1,015.
Madras Presidency	Dec. 20-26	108	64	
Rangoon	Jan. 10-16	6	5	
Java:				
Batavia	Jan. 9-15	37	37	Province.
Soerabaya	Dec. 27-Jan. 2	10	10	
Mauritius	Nov. 15-Dec. 26	12	9	
Nigeria	October	147	104	
Russia	September	18		
Siam	Oct. 4-31	3	3	
Bangkok	Jan. 10-16		1	

## SMALLPOX

Algeria:				
Algiers	Jan. 21-31	36		
British East Africa:				
Kenya				
Mombasa	Dec. 27-Jan. 2	1		From mainland.
Canada:				
Ontario				
Toronto	Feb. 6-20	3		
China:				
Chungking	Jan. 17-23			Present.
Hongkong	Jan. 3-16	2		
Manchuria:				
Dairen	Jan. 4-10	9	2	
Shanghai	Jan. 10-23	15	33	Cases among foreign population in International Settlement and French Concession; deaths in foreign and Chinese population.
South Manchuria:				
An-shan	Jan. 17-30	2		On railway line.
Changchun	do	10		Do.
Fushun	Jan. 17-23	1		Do.
Kai-yuan	Jan. 24-30	2		Do.
Lao-yang	Jan. 17-23	1		Do.
Mukden	Jan. 24-30	1		Do.
Swatow	Jan. 17-30			Prevalent.

<sup>1</sup> From medical officers of the Public Health Service, American consuls, and other sources.

# CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued

## Reports Received During Week Ended March 12, 1926—Continued

### SMALLPOX—Continued

Place	Date	Cases	Deaths	Remarks
Great Britain:				
Leeds	Jan. 30-Feb. 6	2		
Newcastle-on-Tyne	do.	10		
Sheffield	Jan. 21-Feb. 6	2		
South Shields	Feb. 9			
				Reported present in severe form. Locality 10 miles from Newcastle on Tyne River. Present in Arab quarter of town.
Greece:				
Athens	Jan. 1-31	23	1	
India				Dec. 20-26, 1925: Cases, 2,976; deaths, 750.
Calcutta	Jan. 10-16	25	13	
Madras	Jan. 17-23	10	2	
Rangoon	Jan. 10-16	5		
Japan:				
Yokohama	Feb. 23	7		
Java:				
Soerabaya	Dec. 27-Jan. 2	17	10	
Mexico:				
Guadalajara	Feb. 16-22		2	
San Luis Potosi	Feb. 7-20		11	
Tampico	Feb. 14-20	1		
Torreón	Jan. 1-31		33	
Siam:				
Bangkok	Jan. 10-16	3	1	
Spain:				
Valencia	Jan. 31-Feb. 6	1		
Straits Settlements:				
Singapore	Dec. 20-26	1		
Union of South Africa:				
Kuruman district	Jan. 10-16			Outbreaks.

### TYPHUS FEVER

Bulgaria	November	3		
Czechoslovakia	do.	85		
Greece:				
Athens	Jan. 1-31	19	4	
Hungary	November	3		
Mexico:				
Mexico City	Feb. 6-13	17		Including municipalities in Federal District.
San Luis Potosi	Feb. 6-13		1	
Morocco	August-November	36		Corrected.
Norway	November	1		
Poland	Nov. 1-14	88	11	
Rumania	August	33	6	
Russia	September	715		
Union of South Africa:				
Cape Province	Jan. 10-16			Outbreaks. At two localities.
Natal—				
Durban	Jan. 10-16	1		

### YELLOW FEVER

Gold Coast	October	1		
Nigeria	October	1	1	
Senegal	November	3	2	

# CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued

Reports Received from December 26, 1925, to March 5, 1926<sup>1</sup>

## CHOLERA

Place	Date	Cases	Deaths	Remarks
India				Oct. 18-Dec. 19, 1925: Cases, 18,697; deaths, 10,918.
Calcutta	Nov. 1-28	101	89	
Do.	Dec. 6-Jan. 9		74	
Madras	Nov. 15-Jan. 2	174	70	
Do.	Jan. 3-16	26	22	
Rangoon	Nov. 8-Dec. 5	4	4	
Indo-China				September, 1925: Cases, 9; deaths, 5. September, 1924: Cases, 7; deaths, 4. (European cases, 2.) September, 1924: None. September, 1924: 1 case; 1 death.
Province—				
Annam	Sept. 1-30	2	2	
Cochin China	do.	5	3	
Saigon	Jan. 4-10	1	1	Including 100 kilometers of surrounding country.
Tonkin	do.	2		
Japan	Aug. 30-Oct. 17	409		
Philippine Islands:				
Manila	Nov. 9-Jan. 3	15	10	
Do.	Jan. 4-18	5	17	
Provinces—				
Bataan	Nov. 30-Dec. 26	29	25	
Bulacan	Oct. 18-Nov. 7	92	64	
Do.	Nov. 23-Dec. 31	200	88	
Laguna	Nov. 23-Dec. 26	18	14	
Nueva Ecija	do.	6	2	
Pampanga	Nov. 1-7	1	1	
Do.	Nov. 23-Dec. 31	113	85	
Rizal	Sept. 27-Nov. 21	75	21	
Rorblon	Dec. 7-13	23	12	
Russia	May-June	7		
Do.	July-August	4		
Siam:				
Bangkok	Oct. 4-Nov. 14	108	68	
Do.	Nov. 22-Dec. 26	270	149	
Do.	Dec. 27-Jan. 9	59	44	
On vessel:				
Steamship	Oct. 3	9		Arrived at Bangkok, Siam; cases in coolie passengers.

## PLAGUE

Argentina				Jan. 24-30, 1926: Six cases, occurring in interior provinces of Salta and Santa Fe.
Brazil:				
Bahia	Nov. 8-Dec. 27	3	1	
Do.	Dec. 27-Jan. 2	1	1	
Santos	Dec. 8-21		2	
British East Africa:				
Kenya—				
Kisumu	Nov. 22-Dec. 5	1	2	
Uganda Protectorate	Sept.-Oct.	256	233	
Canary Islands:				
La Laguna	Dec. 24	3	2	
Las Palmas	do.	1		
Do.	Jan. 7	1	1	
Santa Cruz de Tenerife	Dec. 18-27	3		
Ceylon:				
Colombo	Nov. 15-Dec. 5	3	3	1 plague rodent.
Do.	Dec. 27-Jan. 2	1	1	
China:				
Nanking	Nov. 15-Jan. 23			Prevalent.
Colombia:				
Buenaventura				Feb. 12, 1926: Plague-infected rat.
Ecuador:				
Eloy Alfaro	Jan. 1-15	1		
Guayaquil	Nov. 1-Dec. 31	31	12	
Do.	Jan. 1-15	15	5	
Recreo (country estate)	do.	1		
Egypt:				
Beni Suef	Nov. 18	1		
Fayoum Province	Dec. 3-9	1	1	Jan. 1-Dec. 9, 1925: Cases, 138. Corresponding period, 1924: Cases, 365.

<sup>1</sup> From medical officers of the Public Health Service, American consuls, and other sources.

# **CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER**--Continued

**Reports Received from December 26, 1925, to March 5, 1926--Continued**

## **PLAGUE--Continued**

Place	Date	Cases	Deaths	Remarks
Greece:				
Athens	Nov. 1-30	18	4	Including Piræus.
Patras	Nov. 13-Dec. 12	4	1	
Hawaii Territory:				
Panalo				Jan. 20, 1926: Plague-infected rat found in vicinity.
India:				
Bombay	Dec. 6-12	1	1	Oct. 18-Dec. 19, 1925: Cases, 11,904; deaths, 8,329.
Do	Jan. 3-9	2	2	
Calcutta	Dec. 6-12	1	1	
Karachi	Nov. 1-Dec. 19	4	3	
Madras	Oct. 25-Nov. 7	75	41	
Do	Nov. 15-21	35	22	
Rangoon	Oct. 26-Dec. 26	23	15	
Do	Dec. 27-Jan. 9	4	3	
Indo-China:				
Province--				September, October 1925: Cases, 25; deaths, 23. September, 1924: deaths, 12.
Cambodia	Sept. 1-30	11	11	September, 1924: Cases, 9; deaths, 9.
Cochin China	September-October	14	12	September, 1924: 1 case, 1 death.
Iraq:				
Bagdad	Dec. 13-Jan. 2	7	3	
Java:				
Batavia	Oct. 24-Nov. 6	94	80	Province.
Do	Nov. 14-Jan. 8	341	323	
Cheribon	Sept. 27-Oct. 17		166	
Do	Nov. 15-28		59	
Djokjakarta	Oct. 20-Nov. 9			Epidemic in 1 locality.
Kediri	Dec. 7			Do.
Pekalongan	Sept. 27-Oct. 17		42	
Do	Nov. 8-28		80	
Rembang	Oct. 20			Do.
Soerabaya	Oct. 11-Dec. 26	59	59	
Tegal	Sept. 27-Oct. 17	6	6	
Do	Nov. 8-28		14	
Madagascar:				Nov. 1-30, 1925: Cases, 232; deaths, 220.
Province--				
Itasy	Sept. 16-Oct. 31	20	20	
Do	Nov. 16-30	13	13	
Moramanga	Sept. 16-Nov. 30	25	25	
Tananarive	Sept. 16-Oct. 31	174	159	
Town--				
Fort Dauphin	Sept. 16-Nov. 30	6	3	
Tamatave (port)	Sept. 16-30	3	2	
Do	Oct. 16-Nov. 30	9	9	
Tananarive	Sept. 16-30	2	2	
Do	Nov. 1-30	11	11	
Other localities	do	104	182	
Mauritius Island	Sept. 20-Nov. 30	11	10	
Pamplemousses	Oct. 1-Nov. 30	3	2	
Port Louis	do	4	1	
Rivière du Rempart	do	2		
Netherlands India:				
Celebes Island--				
Makassar	Dec. 12			Epidemic.
Nigeria	August-September	349	267	
Peru:				
Huacho	Jan. 26	15		Port 60 miles north of Callao.
Lima	Jan. 1-31	20		In hospital. Some cases in province.
Mollendo	do			12 or 15 cases reported unofficially.
Russia:				
Do	May-June	67		
Senegal	July-August	139		
Do	September-October	45	25	
Siam:				
Bangkok	Aug. 23-Oct. 13	50	40	
Do	Nov. 15-28	3	3	
Do	Jan. 3-9	36	30	
Straits Settlements:				
Singapore	Nov. 1-Dec. 5	8	8	
Syria:				
Beirut	Nov. 11-20	1		



# **CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued**

**Reports Received from December 26, 1925, to March 5, 1926—Continued**

## **PLAGUE—Continued**

Place	Date	Cases	Deaths	Remarks
Union of South Africa:				
Cape Province—				
Kimberley district.....	Dec. 13-19.....	1	-----	European. Native. On farm.
Middleburg district.....	Dec. 6-12.....	1	-----	
Steynsburg district.....	Nov. 15-21.....	1	-----	
Orange Free State—				
Boshof district.....	Nov. 29-Dec. 5....	1	1	In native.
Bothaville district.....	Dec. 6-12.....	1	1	Native. On farm.

## **SMALLPOX**

Algeria:					
Algiers.....	Nov. 21-Dec. 31....	177	-----		
Do.....	Jan. 1-10.....	64	-----		
Arabia:					
Aden.....	Nov. 29-Dec. 5....	1	-----		Imported.
Do.....	Jan. 10-18.....	2	-----	1	
Argentina:					
Rosario.....	October.....		-----	1	
Australia:					
Queensland—					
Brisbane.....	Dec. 9-15.....	1	-----		
Brazil:					
Para.....	Jan. 10-30.....	25	-----	5	
Rio de Janeiro.....	Nov. 1-28.....	134	-----	72	
Do.....	Dec. 6-26.....	65	-----	26	
British East Africa:					
Kenya—					
Mombasa.....	Nov. 15-Dec. 19....	14	-----	6	
Uganda Protectorate.....	Sept. 1-Oct. 31....	8	-----	4	
British South Africa:					
Southern Rhodesia.....	Nov. 13-Dec. 23....	3	-----		
Canada:					
					Sept. 13-Jan. 2: In 7 Provinces,
					186 cases. Jan. 3-23, 1926, cases,
					115. Jan. 31-Feb. 6, 1926,
					cases, 33.
					From Drumheller, vicinity of
					Calgary.
Alberta.....		Jan. 10-Feb. 26....	26	-----	
Calgary.....	Dec. 13-19.....	1	-----		
British Columbia—					
Vancouver.....	Jan. 4-10.....	1	-----		
Manitoba.....	Jan. 3-Feb. 13....	22	-----		
Winnipeg.....	Dec. 13-19.....	2	-----		
Do.....	Jan. 3-Feb. 6....	9	-----		
New Brunswick—					
Northumberland.....	Dec. 6-13.....	1	-----		
Ontario.....					
December, 1925....		32	-----	1	
Do.....	Jan. 1-Feb. 13....	103	-----		
Admaston.....	Jan. 1-31.....	11	-----		
Ottawa.....	Dec. 6-12.....	2	-----		
Do.....	Jan. 3-Feb. 6....	2	-----		
Toronto.....	Dec. 27-Jan. 2....	1	-----		
Do.....	Jan. 3-23.....	21	-----		
Trenton.....	Jan. 1-31.....	7	-----		
Saskatchewan.....	Jan. 3-Feb. 13....	30	-----		
Moose Jaw.....	do.....	2	-----		
Regina.....	Jan. 24-30.....	1	-----		
Ceylon:					
Colombo.....	Dec. 6-12.....	1	-----		Port case
Do.....	Jan. 3-9.....	2	-----		Do.
China:					
Amoy.....		Oct. 25-Dec. 19....	-----	1	
Do.....	Jan. 10-16.....		-----		Present.
Antung.....	Dec. 7-20.....	2	-----		
Chungking.....	Nov. 15-Jan. 16....		-----		Do.
Foochow.....	Nov. 1-Jan. 9....		-----		Do.
Hankow.....	Nov. 14-Dec. 26....	4	-----		
Do.....	Jan. 10-16.....	1	-----		
Hongkong.....	Nov. 22-Dec. 26....	4	-----		
Manchuria—					
An-shan.....	Dec. 6-12.....	1	-----		South Manchurian Railway. Do.
Do.....	Jan. 10-16.....	1	-----		
Changchun.....	do.....	1	-----		

# CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued

Reports Received from December 26, 1925, to March 5, 1926—Continued

## SMALLPOX—Continued

Place	Date	Cases	Deaths	Remarks
China—Continued.				
Manchuria—Continued.				
Dairen	Oct. 19-Dec. 27	73	15	
Do	Dec. 28-Jan. 3	11	2	
Harbin	Jan. 1-7	1		
Kai-yuan	Jan. 10-16	2		South Manchurian Railway.
Mukden	Oct. 24-Nov. 15	1		
Tieh-ling	do	2		Do.
Nanking	Nov. 21-Dec. 26			Present.
Do	Dec. 27-Jan. 9			Do.
Shanghai	Oct. 25-Jan. 2	37	36	
Do	Jan. 3-9	9	16	Cases, foreign.
Swatow	Nov. 22-Jan. 16			Prevalent.
Tientsin	Nov. 1-Dec. 19	2		
Egypt:				
Alexandria	Dec. 3-31	5	2	
Do	Jan. 8-14	2	1	
Estonia				November, 1925: Cases, 3.
France				September-October, 1925: Cases, 91.
Gold Coast	September, 1925	14	4	
Great Britain:				
England and Wales				Nov. 15-Dec. 26, 1925: Cases, 790.
Hull	Dec. 27-Jan. 23	29		Dec. 27-Jan. 30, 1926: Cases, 1,526.
Leeds	Jan. 14-23	2		
Newcastle-on-Tyne	Nov. 29-Dec. 19	6		
Do	Dec. 27-Jan. 30	10		
Nottingham	Nov. 22-Dec. 26	9		
Do	Dec. 27-Jan. 9	2		
Sheffield	Nov. 22-Dec. 12	7		
Do	Dec. 20-26	3		
Do	Dec. 27-Jan. 23	10		
Greece				Oct. 1-31, 1925: Cases, 16.
Athens	Nov. 1-30	17	1	
India:				
Bombay	Nov. 8-Dec. 26	26	20	Oct. 18-Dec. 19, 1925: Cases, 16,496; deaths, 3,690.
Do	Dec. 27-Jan. 9	26	13	
Calcutta	Nov. 29-Dec. 26	48	25	
Do	Dec. 27-Jan. 9	48	23	
Karachi	Nov. 1-21	23		
Do	Nov. 29-Dec. 5	4	2	
Do	Dec. 13-19	3		
Do	Dec. 29-Jan. 16	12	6	
Madras	Nov. 15-Dec. 26	17	5	
Do	Dec. 27-Jan. 16	18	5	
Rangoon	Oct. 25-Nov. 28	3		
Do	Dec. 6-26	4	1	
Do	Dec. 27-Jan. 9	8	1	
Indo-China				September-October, 1925: Cases, 204; deaths, 62. September, 1924: Cases, 78; deaths, 22.
Provinces—				
Annam	Sept. 1-Oct. 31	90	23	September, 1924: Cases, 8; deaths, 2.
Cambodia	do	72	30	September, 1924: Cases, 16; deaths, 1.
Cochin China	do	61	30	September, 1924: Cases, 43; deaths, 19.
Salon	Dec. 21-27	2	1	Including 100 kilometers of surrounding country.
Do	Jan. 1-10	1		September, 1924: Cases, 11.
Tonkin	do	22		Sept. 6-Oct. 17, 1925: Cases, 81; deaths, 40.
Iraq				
Bagdad	Nov. 1-14	4	4	
Do	Nov. 22-Dec. 26	15	11	
Do	Dec. 27-Jan. 2	6	2	
Italy				Aug. 2-Oct. 31, 1925: Cases, 38.
Genoa	Jan. 21-31	2		
Rome	Oct. 12-25	1		
Jamaica				Nov. 29-Dec. 26, 1925: Cases, 65. Dec. 27-Jan. 30, 1926: Cases, 138. Reported as alastrim.
Kingston	Nov. 29-Dec. 26	43		Reported as alastrim.
Do	Dec. 27-Jan. 30	48		Do.

# CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued

Reports Received from December 26, 1925, to March 5, 1926—Continued

## SMALLPOX—Continued

Place	Date	Cases	Deaths	Remarks
Japan:				
Taiwan	Nov. 11-Dec. 10	3		
Yokohama	Dec. 14-20	1		
Java:				
Batavia	Oct. 24-30	1		
Do	Nov. 14-Dec. 25	7		
Cheribon	Nov. 8-14	1		
Kraksaan	Oct. 11-17	11		
Malang	do	2		
North Bantam	Oct. 4-17	4		
Pekalongan	Oct. 25-31	1		
Probolingo	Oct. 11-17	1		
Soerabaya	Oct. 11-Dec. 26	633	104	
South Bantam	Oct. 11-17	1		
Tegal	Oct. 4-10	9	1	
Latvia				December, 1925: Cases, 3.
Malta	Nov. 1-Dec. 31	21	3	
Mexico:				July-September, 1925: Deaths, 1,157.
Aguscalientes	Dec. 13-Jan. 2	4	3	
Do	Jan. 3-30		7	
Durango	Dec. 1-31		1	
Do	Jan. 1-31		2	
Guadalajara	Feb. 1		1	
Mexico City	Nov. 28-Dec. 5	1		Including municipalities in Federal District.
Do	Jan. 3-23	3		Do.
San Luis Potosi	Jan. 24-Feb. 6		13	Prevalence stated to be decreasing.
Tampico	Dec. 21-Jan. 2	1	1	
Do	Jan. 2-Feb. 10	4		
Torreón	Nov. 1-Dec. 31		51	
Nigeria	August-September	103	1	
Persia:				
Teheran	July 23-Sept. 22		203	
Peru:				
Arequipa	Oct. 1-Dec. 31		2	
Poland				Nov. 1-28, 1925: Cases, 9.
Portugal:				
Lisbon	Oct. 4-31	124		
Do	Nov. 16-Dec. 27		60	
Do	Nov. 14-Dec. 26	187		
Do	Dec. 27-Jan. 17	40	17	
Oporto	Nov. 22-Dec. 19	2	3	
Do	Dec. 27-Jan. 2	1		
Russia				May-June, 1925: Cases, 2,333.
Do	July-August	760		Later than previously published reports.
Siam				July 12-Sept. 5, 1925: Cases, 21; deaths, 6.
Bangkok	Dec. 20-25	3	1	
Do	Dec. 26-Jan. 9	5	4	
Sierra Leone:				
Konno district	Dec. 16-31	5		
Spain:				
Madrid	Year 1925		18	
Malaga	Nov. 20-Dec. 5		2	
Do	Dec. 27-Jan. 2		1	
Valencia	Dec. 20-26	1		
Do	Dec. 27-Jan. 2	1		
Do	Jan. 10-30	8		
Switzerland:				June 28-Nov. 21, 1925: Cases, 62.
Lucerne	Oct. 1-Nov. 30	8		
Zurich	Dec. 27-Jan. 2	1		
Trinidad (West Indies):				
Port of Spain	Jan. 22	1		Imported.
Tunisia:				
Tunis	Nov. 21-30	2		
Do	Dec. 11-31	10	1	
Do	Jan. 1-20	5		
Union of South Africa:				
Orange Free State—				
Ladybrand district	Dec. 27-Jan. 2			Outbreaks.
Transvaal—				
Belfast district	do			Do.
Germiston district	Jan. 2-9			Do.
Pretoria district	Dec. 6-12			Outbreaks. In native compound.

# CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued

Reports Received from December 26, 1925, to March 5, 1926—Continued

## TYPHUS FEVER

Place	Date	Cases	Deaths	Remarks
Algeria:				
Algiers.....	Nov. 1-Dec. 20....	2	—	
Argentina:				
Rosario.....	Oct. 13-Dec. 31....	2	—	
Bulgaria.....	September-October.	26	2	
Sofia.....	Dec. 25-31.....	1	—	
Do.....	Jan. 8-14.....	2	—	
Chile:				
Valparaiso.....	Nov. 29-Jan. 2.....	—	2	
China:				
Antung.....	Nov. 29-Dec. 27....	5	1	
Do.....	Jan. 4-10.....	1	—	
Hongkong.....	Dec. 27-Jan. 2.....	1	—	
Manchuria—				
Harbin.....	Dec. 17-23.....	1	—	
Czechoslovakia.....	October, 1925.....	8	—	
Egypt:				
Alexandria.....	Jan. 8-14.....	1	—	
Cairo.....	Nov. 5-11.....	2	2	
Port Said.....	Nov. 19-25.....	1	—	
Finland.....				October, 1925: 1 case.
France.....	July-October.....	4	—	
Germany.....	Oct. 25-31.....	1	—	
Greece:				
Athens.....	Nov. 1-30.....	11	2	
Saloniki.....	Dec. 29-Jan. 4.....	1	—	
Ireland:				
Cork County—				
Cork.....	Dec. 26-Jan. 1.....	2	—	
Do.....	Jan. 2-8.....	5	—	
Dumanway.....	Nov. 14.....	1	—	
Galway County.....	Oct. 17.....	1	—	
Latvia.....	October, 1925.....	2	—	
Lithuania.....				September-October, 1925: Cases, 9; deaths, 1.
Mexico.....				July-September, 1925: Deaths, 90.
Aguascalientes.....	Dec. 14-19.....	1	—	
Durango.....	Dec. 1-31.....	—	1	
Do.....	Jan. 1-31.....	—	1	
Guadalajara.....	Dec. 8-Jan. 4.....	—	3	
Mexico City.....	Nov. 22-Dec. 26....	145	—	
Do.....	Dec. 27-Feb. 6.....	30	—	Including municipalities in Federal District.
Tampico.....	Dec. 21-Jan. 10.....	1	1	
Torreón.....	November, 1925.....	—	1	
Vera Cruz.....	Feb. 12.....	—	1	
Morocco.....	August, 1925.....	3	—	
Palestine:				
Gaza.....	Dec. 18.....	1	—	
Jaffa.....	Dec. 1-7.....	1	—	
Nazareth.....	Nov. 3-9.....	1	—	
Safad.....	Nov. 24-30.....	1	—	
Tel-Aviv.....	do.....	1	—	
Peru:				
Arequipa.....	October-December.....	—	3	
Poland.....	Oct. 11-Nov. 14.....	142	16	
Rumania.....				July, 1925: Cases, 74; deaths, 9.
Russia.....				May-June, 1925: Cases, 10,680.
Do.....				Later than previously published reports.
Union of South Africa.....				July-August, 1925: Cases, 3,136.
				October, 1925: Cases, 88; deaths, 7 (colored). Cases, European, 7. December, 1925: Cases, 78; deaths, 9. Colored: Cases, 73; deaths, 9.
Cape Province.....	Oct. 1-31.....	63	5	Colored.
Do.....	Nov. 8-Dec. 31.....	47	8	
Do.....	Jan. 2-9.....	—	—	Outbreaks.
Middleburg district.....	Dec. 6-12.....	1	—	European. On farm.
Natal.....	Oct. 1-Dec. 5.....	1	—	
Durban.....	Jan. 3-9.....	—	—	Outbreaks.

# **CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER**—Continued

Reports Received from December 26, 1925, to March 5, 1926—Continued

## **TYPHUS FEVER**—Continued

Place	Date	Cases	Deaths	Remarks
Union of South Africa—Con.				
Orange Free State.....	Nov. 29-Dec. 5.....	23	1	
Do.....	Dec. 1-31.....	3	1	
Bothalla district.....	Dec. 6-12.....			Outbreaks.
Bothaville district.....	do.....	1		Native. On farm.
Transvaal.....	Oct. 1-31.....	1	1	
Do.....	Dec. 1-31.....	18		
Bloemhof district.....	Dec. 27-Jan. 2.....			Outbreaks. On farm.

## **YELLOW FEVER**

Gold Coast.....	September.....	1	1	
Nigeria.....	August-September.	2	1	



TREASURY DEPARTMENT

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## ===== SPECIAL ARTICLES =====

International Conference on Biological Standardization  
of Remedies

Reports of the Health Section of the League of Nations



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1926

## UNITED STATES PUBLIC HEALTH SERVICE

HUGH S. CUMMING, *Surgeon General*

### DIVISION OF SANITARY REPORTS AND STATISTICS

Asst. Surg. Gen. B. J. LLOYD, *Chief of Division*

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They contain: (1) Current information of the prevalence and geographic distribution of preventable diseases in the United States in so far as data are obtainable, and of cholera, plague, smallpox, typhus fever, yellow fever, and other communicable diseases throughout the world. (2) Articles relating to the cause, prevention, or control of disease. (3) Other pertinent information regarding sanitation and the conservation of the public health.

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# PUBLIC HEALTH REPORTS

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## THE SECOND INTERNATIONAL CONFERENCE ON THE BIOLOGICAL STANDARDIZATION OF CERTAIN REMEDIES

It is obvious that the usefulness of any medicinal remedy depends in large measure upon accurate dosage and uniformity in composition. If the remedies can be obtained in chemically pure form it is a simple matter to set up official chemical and physical standards to insure uniformity in composition and, hence, a reasonable constancy of therapeutic action. However, there exist a number of important remedies which, for some reason or other, can not be obtained in chemically pure form. Some of the remedies belonging to this class are highly potent. An overdose may be followed by serious symptoms and even death, whereas an insufficient dose may not produce the desired therapeutic action. Insulin, pituitrin, digitalis, arsphenamine and its substitutes, ergot, thyroid, etc., may be mentioned in this connection. It is therefore very important that methods of standardization should be developed which will permit the sale of these remedies in such form as to insure (1) constancy of therapeutic potency, (2) freedom from toxic impurities, and (3) elimination of fraudulent preparations.

In the case of the above-mentioned remedies, chemical and physical tests have either completely failed or are only of limited value. It is for this reason that a great deal of work has been carried out during the last 20 years to develop biological methods of assay. This work was carried out in different laboratories in different countries without any sufficient attempt at coordination, and, what is even more important, without effective control of the methods proposed. The result was that some of these remedies were sold to physicians with the claim of having been biologically standardized, though examination of the various products on the market often revealed enormous differences in potency. To mention only one example, it was found that the potency of pituitrin from various commercial sources varied as much as 800 per cent. It is not surprising that, under these conditions, this powerful remedy was used by physicians with more or less reluctance.

In order to remedy this situation the Health Committee of the League of Nations called a conference in July, 1923, at Edinburgh, of some expert pharmacologists and physiologists. This conference critically reviewed the then existing methods and organized some

cooperative work which was effectively carried out in various countries under the leadership of Dr. H. H. Dale of the National Institute of Medical Research of England.

The Second International Conference was convened in August, 1925, at Geneva. This conference discussed the work accomplished during the two preceding years and arrived, by unanimous consent, at the conclusions which are given below. These resolutions were adopted by the International Conference for the Unification of Formulas for Heroic Remedies held in Brussels in September, 1925. It is anticipated that these resolutions will be used by the various national pharmacopœial revision committees for the purpose of insuring national and international uniformity in potency of these important remedies.

#### Pituitary Extract

"The Conference recommends:

"1. That the dry (acetone) extracted substance of the fresh posterior lobe of the pituitary gland, which was recommended by Professor Voegtlin to the Edinburgh Conference as suitable for adoption as a standard of activity for pituitary extracts, and which has since been adopted as the standard for this purpose in the United States Pharmacopœia, Edition X, be now definitely accepted as the International Standard.

"2. That, since the evidence before the Conference indicates that, by strict adhesion to the instructions for its preparation, as given in the United States Pharmacopœia, Edition X, a sample of this powder of standard strength can be prepared at any time and in any country, the authority responsible for biological standardization, in each country concerned, should prepare such quantities of the standard as are needed for distribution in its own country. That Professor Voegtlin be requested to furnish, on behalf of the Health Organisation of the League of Nations, a small sample of the standard, as originally prepared for examination by the Edinburgh Conference, to any authority which may need it for confirmation of its own national standard.

"3. That it be recommended to the authorities responsible in the different countries for the pharmacopœias that a dry preparation of the pituitary posterior lobe, prepared in exact accordance with the method indicated for preparing the standard powder, should be included in each pharmacopœia, to serve as the official raw material for the preparation of the official watery extract.

"4. That in order to ensure the stability of the liquid extract prepared from such a powder, the hydrogen-ion concentration should be adjusted to within the limits represented by pH 4 and pH 5. The extract should be sterilised and sealed in ampules of non-alkaline resistant glass.

"5. That the pharmacopœial dried preparation and the extracts prepared therefrom should be biologically assayed in comparison with the standard, the extracts from the standard powder, and from the pharmacopœial dried preparation, being prepared for biological comparison according to the method indicated in the United States Pharmacopœia, Edition X. For the purpose of the biological assay, the test on the isolated uterus of the virgin guinea-pig, as described in the United States Pharmacopœia, Edition X, is recommended, as giving the most accurately quantitative results, among the available methods. As additional methods, may be recognised the test for pressor activity on the anaesthetised dog or the decapitated cat, and the test for antidiuretic action on the unanaesthetised dog.

"6. That in making the assay by the action on the guinea-pig's uterus, it is recommended that a test for non-specific, stimulant activity on that organ should be applied. This can be done by treating the extract under examination with normal NaOH for one hour at the ordinary temperature (20° C.), neutralising to litmus paper, and re-testing. Not more than 5 per cent of the activity on the uterus should survive this treatment.

"7. That the strength of all pituitary extracts should be expressed in units of activity, *the activity corresponding to 0.5 milligramme of the standard powder being defined as one unit*, so that, for example, the official liquid extract of the United States Pharmacopœia, Edition X, would contain 10 international units of activity per cubic centimetre."

#### Insulin

"It is recommended:

"1. That the dry preparation of insulin hydrochloride, prepared by the Medical Research Council of Great Britain, at the request of the Edinburgh Conference, should be accepted as the international standard preparation of insulin. That 1 milligramme of this standard contains 8 units of insulin (or 1 unit=0.125 milligramme), as provisionally defined by the Insulin Committee of the University of Toronto.

"2. That this standard preparation be kept, on behalf of the Health Organisation of the League of Nations, by the Medical Research Council, who will undertake to test the permanence of its potency from time to time.

"3. That samples of this preparation, weighing 0.100 gramme each, be sent to some responsible organisation in each country (such as an Insulin Committee or a Government institution) who will undertake further distribution to testing laboratories. In those countries in which no suitable organization for this purpose exists, samples of the standard will be distributed by the Medical Research Council after consultation with the Insulin Committee of the Univer-

sity of Toronto, or, in case this Committee be discontinued, with one appointed by the Health Committee of the League of Nations.

"4. That each testing laboratory should prepare a standard of its own, and should compare the potency of this with the sample of the international standard placed in its hands for this purpose. When the latter is exhausted, further comparisons with the international standard should, where possible, be undertaken by the responsible authority for the particular country.

"5. That either of the following methods be considered as suitable for the bio-assay of insulin:

"(A) METHODS DEPENDING ON THE EFFECT ON BLOOD-SUGAR

*First method.*—Varying quantities of insulin that are less than the convulsive dose are injected subcutaneously into rabbits of about two kilogrammes body-weight, from which food has been withheld for 18–24 hours, and the average of the blood-sugar percentages over a period of five hours after the injection is subtracted from the blood-sugar percentage immediately preceding the injection. The number of units of insulin present in each cubic centimetre of the preparation is then calculated by use of a formula. Each rabbit used in the assays is tested at suitable intervals with a standard preparation which is periodically compared with the international standard.

*Second method.*—Alternatively, one-half of a series of rabbits receives, in each case, an injection of  $\frac{1}{2}$  unit of the standard preparation per kilogramme, and the other half receives, on the same day, the dose supposed to be equivalent of the sample under test. The percentage fall of the blood-sugar content over a period of five hours is determined as above. A few days later the determinations are repeated on the same series of rabbits in this way, that the rabbits previously receiving the standard preparation now receive that under test and *vice versa*.

"From the relation between the falls of blood-sugar content produced, on the one hand, by the standard preparation, and on the other hand by the sample under test, the true activity of the latter in units per cubic centimetre can be calculated.

"(b) METHOD DEPENDING ON THE INCIDENCE OF SYMPTOMS IN WHITE MICE

"The assay is carried out by comparison with a standard preparation injected simultaneously with the unknown sample on an equal number of mice from a common stock. The onset of convulsions or collapse is used as the end point of the reaction and a mouse dose is the quantity producing convulsions (or collapse) in half the number of mice injected. During the test the mice are kept in an incubator at a uniform temperature of not less than 30° C.

"6. That the Conference appoint a sub-committee, which shall submit recommendations with regard to the permissible content of organic solid matter per unit in preparations of insulin and with regard to tests for the stability of such preparations.

"7. That, in future, the term 'unit of insulin' or 'insulin unit' should only be used in the sense indicated above."

#### Digitalis

"The Conference recommends:

"1. That, as an international standard, a dry powdered preparation of the leaves of *Digitalis purpurea* shall be made by Professor Magnus, on behalf of the Health Organisation of the League of Nations, of the same strength ( $\pm 10\%$ ) as the experimental standard powder, prepared in accordance with the decision of the First International Conference on Biological Standardisation (Edinburgh 1923), and forming the basis of the various reports presented to this Conference. This standard shall be prepared by the mixture of ten different powders, made from leaves properly dried at 55-60° C., shall be adjusted by biological assays, carried out by Professor Magnus (who will use the method of assay on cats), and shall be distributed for international use. The permanence of its activity shall be annually controlled by Professor Magnus. If it should deteriorate, or if the supply should be nearly exhausted, a new standard preparation shall be prepared by the same method, and of exactly equal activity.

"The preparation shall be distributed in sealed ampules of brown glass. These shall be placed at the disposal of the different countries, for the assay of their own national standard preparations.

"2. That, according to present knowledge, no particular method of extraction (infusion, cold alcohol, warm alcohol) can be recommended as the only correct one. It is necessary, however, for the purpose of assay, that the preparation to be tested and the standard preparation shall be extracted by the same method.

"3. As methods of biological assay, the following can at present be recommended as sufficiently accurate:

"(1) THE FROG METHOD, WITH A PERIOD OF OBSERVATION OF AT LEAST 4 HOURS

"A. Preparation of an extract of digitalis leaves with absolute alcohol.—One gramme of digitalis leaves, coarsely powdered (B. 20 = mesh of about 0.75 mm.) and dried to constant weight over sulphuric acid, is allowed to stand for 24 hours at room temperature with 25 c. c. of absolute alcohol, with occasional shaking in a closed spherical flask of about 100 c. c. content. The mixture is then boiled for 30 minutes with a reflux condenser, on a sandbath over the smallest

possible flame, and, while still hot, is filtered through a plain filter of about 9 cm. diameter. The residue is washed with absolute alcohol on the filter until filtrate becomes colourless. The combined filtrates are slowly evaporated in a thin-walled, tared watch-glass, on a boiling water bath to 5 c. c. (about 4.5 grammes), the drying of any portion being carefully avoided.

"The concentrated extract, while still hot, is transferred with the aid of distilled water to a graduated flask, and made up to 25 c. c. with distilled water. By this procedure one obtains an emulsiform, greenish solution in weak, watery alcohol. This must be used immediately for the test.

"B. *Assay of the extract, obtained as described under (a), on frogs, by determination of the minimal lethal dose by the so-called unlimited-time method.*—For the test only healthy male frogs must be used (grass frogs, *Rana temporaria* or *Rana pipiens*), kept under constant conditions and weighing up to 40 grammes each. The body weight of the frogs, kept for several hours in the laboratory in a moist glass case, is determined immediately before the injection to an accuracy of 0.5 gramme, after drying the skin and expressing the urine.

"The extract prepared as above described is injected into frogs, through the mouth, into the breast lymph-sac, with a syringe graduated in hundredths of a c. c. Larger quantities than 0.3 c. c., or with weakly active preparations 0.5 c. c., should not be injected into the breast lymph sac; if necessary, the injections are to be made, in such cases, also into one or both of the lymph-sacs of the thighs.

"The following signs of intoxication appear: Within  $\frac{1}{2}$  to 2 hours after the injection, restlessness, air-hunger, formation of froth, paralysis and, in the course of four hours, stoppage of the heart. The criterion for the determination is that the stoppage is either systolic or rapidly transformed into systole.

"The orientating tests are carried out as follows: Doses differing by 20 per cent per gramme of frog are injected, one or two frogs being used for each dose.

"The final determination can be made by the following procedure:

"The mean between the smallest active and the greatest inactive dose is the first approximation. By further more exact determination, with four to six frogs on each dose, the final value can be obtained with an accuracy of 10 per cent. The determination is completed when, of two doses differing by 10 per cent, the higher kills a majority of frogs injected, the lower a smaller number.

"The value is expressed as a percentage of the standard preparation, which is tested at the same time and in the same manner. Only such leaves shall be passed for issue as differ from the standard preparation by not more than 25 per cent.



"The assay of digitalis tinctures is made in the following manner:

"10 c. c. of the official tincture (=1 gramme of leaves) are concentrated on the water bath at temperatures not above 60° C. to 5 c. c. volume, washed into a measuring flask with distilled water, and made up to 25 c. c. The assay is made according to the same method as described above for digitalis leaves.

"(2) THE CAT METHOD, AS MODIFIED BY MAGNUS FROM THAT OF HATCHER

"For biological standardisation on the cat the  $\frac{1}{2}$  per cent infusion of the digitalis leaves is used, prepared according to the indications of the Dutch Pharmacopœia, and then made isotonic by the addition of NaCl; in preparing this infusion, the temperature of 90° C. is not to be exceeded, and the extraction is to be continued for 15 minutes after this temperature has been attained. Cats are used with a body weight between 1.7 and 2.7 kilogrammes. The cat is anaesthetised with ether, a tracheal canula is inserted and, with the help of artificial respiration, a moderate anaesthesia with ether is maintained. The infusion runs at a regular rate from a graduated burette, arranged as a Mariotte's bottle, through a wide canula into the femoral vein. The rate of infusion is so adjusted that the duration of the experiment amounts to about forty minutes; minimum 30 minutes, maximum 55 minutes. If, as a result of the first determination, it appears that the preparation is especially potent, the infusion is suitably diluted, and the first experiment is not included in the calculation.

"The dose is determined which is necessary to produce stoppage of the heart; this is recognised by inspection and palpation of the thorax, by the asphyxial convulsions, and often also by the interrupted flow of the fluid into the vein; it is further confirmed by opening the chest. If the animal is found to be ill (pneumonia) or pregnant, the result obtained with it is rejected.

"In this manner one determines the lethal dose of the 0.5 per cent infusion on  $n$  cats and continues the determination until the mean percentage deviation of the single results, from the mean value of the whole series, is smaller than  $6.67 \sqrt{n-1}$ . The average of the volumes infused per kilogramme of animal gives the true 'assay value' of the preparation. The lethal dose of the digitalis powder, in milligrammes per kilogramme of cat, is obtained by multiplying this number by 5. The number of lethal cat-doses contained in 1 gramme of digitalis powder is obtained by dividing 200 by the assay value.

"For the assay of digitalis tinctures, these are diluted 20 times with physiological salt solution.

"An exact description of the method, and details of the method of calculation, has been published by Dr. C. de Lind van Wyngaarden (*Dè betrouwbaarheid van physiologische ijkingen, uitgewerkt voor Digitalis*, Proefschrift, Utrecht, 1925).

"4. Other digitalis preparations and strophanthus tinctures can be assayed by corresponding methods, using as a standard for strophanthus tinctures (*G. strophanthin* (ouabain), as recommended by the first Conference on biological standardisation (Edinburgh 1923).

"5. That no definite conclusions can be based on the clinical reports presented to the Conference, concerning the activity of the three digitalis powders which were distributed for comparison. It is necessary that these important observations should be continued on a very large number of cases by different methods.

"6. That the methods of biological assay presented to the Conference, other than those above recommended for acceptance, should be the subject of further co-ordinated investigations."

#### Arsphenamine

"The Conference recommends:

"I. That the internationally recognised biological standardisation of remedies of the arsenobenzene group should be made with a series of standard preparations, one for each of the compounds in question.

"II. That the following are the remedies which at present should be the subject of internationally recognised standardisation:

"1. Dioxydiamino-arsenobenzene dihydrochloride (syn. salvarsan, arsphenamine, arsenobenzol, etc.); and

"2. its metallic derivatives (silver-salvarsan); and

"3. Its sodium salt (sodium salvarsan);

"4. Dioxydiamino-arsenobenzene sulphonylate of sodium (syn. neosalvarsan, neoarsphenamine, novarsenobenzol, etc.);

"5. Neosilver-salvarsan;

"6. Sulpharsphenamine (syn. sulfarsenol).

"III. That Professor Kolle of the Georg-Speyer Haus, Frankfurt on M., be requested to accept the responsibility for preparing, maintaining and distributing the standard preparations (1) to (5) on behalf of the Health Organisation of the League of Nations, and that Professor Voegtlin, of the Hygienic Laboratory, Washington, be invited similarly to be responsible for the standard preparation of (6).

"IV. That every batch of the remedies in question, before issue for therapeutic use on human patients, should be tested on normal animals for toxicity and on animals infected with a suitable strain of pathogenic trypanosomes (*T. brucei*, *T. equiperdum*, etc.) for therapeutic potency.

"V. That samples from every batch should be tested for toxicity on at least 10 mice or 5 rats, or on both, material from several separate ampules of each batch being separately tested, and that only such preparations should be passed for issue as exhibit, under identical conditions of experiment, a toxicity not greater than that of the corresponding standard sample.

"VI. That samples of each batch should be tested for therapeutic potency on mice or rats infected with a suitable strain of pathogenic trypanosomes (*T. brucei*, *T. equiperdum*, etc.) in accordance with the following principles:

"1. A series of mice or rats is to be taken, having the same degree of infection with the trypanosome employed, as determined by some method of enumeration per unit volume of blood.

"2. That, on such a series of animals with a uniform degree of infection, each batch shall be tested for therapeutic action in several (e. g., 2-4) doses, with at least three animals on each dose, and the result shall be evaluated by comparison with the effects of the standard preparation, administered to animals of the same species, with the same degree of infection.

"VII. That it is further recommended that, before a batch of one of the remedies in question is certified for general issue, samples of it shall have been used on a series of human patients, under the supervision of a qualified expert."

#### Thyroid Gland

"The members of this Conference are of opinion:

"1. That a biological method for the standardisation of thyroid gland substance is not necessary for routine application, the determination of the iodine in natural combination, as thyroid active principle, being a sufficient indication of the specific therapeutic activity. Where a biological method is needed, as, for example, for the detection of preparations which have been artificially enriched with iodide, they recommend the adoption of the aceto-nitrile test recommended by Professors Reid Hunt and Straub, as described in the publications of Doctors Haffner and Komiyama and Professor Reid Hunt. As a standard of activity, they recommend the activity of a dried preparation of healthy thyroid gland with a natural iodine content of 0.2 per cent.

"2. That Professor Reid Hunt be invited to obtain and keep as an international standard on behalf of the Health Organization of the League of Nations a sufficient sample of dried thyroid gland substance corresponding to the above definition."

**Ergot**

"The members of the Conference are of opinion:

"That the question of the biological standardisation of ergot is not yet ripe for final decision, and that it is desirable to give further study to the biological methods which have already been described, and to investigate those which may be discovered in the future, and especially to compare the results obtained by such methods with those obtained by the chemical method, presented to the Conference by Professor Straub."

**Anthelmintics**

The following resolution was unanimously adopted:

"That the recommendation adopted at the Edinburgh Conference be reaffirmed, with the necessary alterations to include the use of fish in addition to earthworms in the test, the recommendation, in the form of a pharmacopœial direction, being modified to read as follows:

"*Extractum filicis maris æthereum*: Earthworms of medium size, or small fish (*Carassius*, *Gobio*, *Scardinius*) 5-10 cm. in length, when placed in 100 c. c. of a 0.002 per cent watery solution of the extract, shall be killed, but shall survive in lower concentrations of the extract.

"*Rhizoma filicis maris*: A 0.002 per cent watery solution of the official ethereal extract, prepared from the dried drug, shall be the minimal lethal concentration for earthworms, and also for small fish (*Carassius*, *Gobio*, *Scardinius*) 5-10 cm. in length."

"That the method of testing oil of chenopodium on earthworms put forward by Professor Knaff-Lenz may be provisionally adopted as probably furnishing a useful indication as to the relative anthelmintic activities of different samples of this oil, but that further investigation of the method is desirable and that, in particular, an effort should be made to compare the results obtained with the test on earthworms with the practical anthelmintic properties of a series of samples of the oil of chenopodium."

**Vitamins**

"1. That, in the opinion of this Conference, it is of great importance that the preparations used in therapeutics to supply vitamins to the patient should be standardised as accurately as possible, each for its content of its characteristic vitamin or vitamins.

"2. That the preparation for which such standardisation appears at present to be most important and most practicable is cod-liver oil, vitamin A (growth-promoting factor) being the constituent of this oil which can be most accurately assayed.

"3. That the general question of the accuracy and usefulness of methods for the standardisation of all vitamins could be more suitably considered by a special conference of experts, appointed for the purpose.

"4. That this Conference should limit its present activity to the initiation of a comparative test, designed to determine the accuracy and specificity of the colour-reaction for vitamin A, recently described by Drummond and Rosenheim.

"5. That, for the purpose of this investigation, the Conference invite Professor Poulsen, Professor Voegtlin, and Doctor Dale to act as a Sub-Committee."

## CURRENT WORLD PREVALENCE OF DISEASE

REVIEW OF THE MONTHLY EPIDEMIOLOGICAL REPORT ISSUED JANUARY 15, 1926,  
BY THE HEALTH SECTION OF THE LEAGUE OF NATIONS' SECRETARIAT.<sup>1</sup>

A marked rise in the general mortality during the month of December in cities in England and Wales, in Paris, and in several other large cities in Europe was noted in the January Epidemiological Report published by the Health Section of the League of Nations' secretariat. The maximum mortality seems to have occurred in the middle of December, coincidently with an increase in deaths from both respiratory and heart diseases. In the German and Scandinavian cities, the seasonal increase in mortality reported in December did not exceed that for December, 1924. The weekly mortality in some of the principal European cities is given in the table below.

*Weekly mortality (all causes) in certain European cities from November 15, to December 26, 1925, compared with the mortality in corresponding weeks in 1924*

Week ended—	105 English cities		Glasgow		46 German cities		Warsaw		Paris <sup>1</sup>	
	1924	1925	1924	1925	1924	1925	1924	1925	1924	1925
Nov. 21.....	12.1	13.8	16.9	18.5	11.4	10.5	15.0	13.5	14.4	14.1
Nov. 28.....	11.8	14.8	16.2	21.7	11.7	11.4	15.5	14.3	16.3	15.3
Dec. 5.....	12.0	16.3	15.1	21.7	11.6	11.0	13.0	15.0	14.5	17.1
Dec. 12.....	12.1	17.9	15.2	22.4	11.4	12.4	12.0	15.1	17.6	19.9
Dec. 19.....	12.6	16.4	15.7	20.4	11.5	-----	15.3	-----	16.1	-----
Dec. 26.....	11.8	13.7	17.0	18.7	11.4	-----	-----	-----	-----	-----

<sup>1</sup> Paris reports are for 10-day periods, from Nov. 11 to Dec. 31.

The mortality both in the English cities and in Paris, though higher than at any time during the preceding winter, did not reach the level reported in January, 1924.

In the United States the average death rate for 68 large cities for December did not exceed that for December, 1924, but during January and February the weekly death rates rose very sharply. It appears likely that the peak was reached in the week ended February 20, in which the average mortality for the 68 cities was 16.4 per 1,000. Although this rate is higher than that for any week in 1924 or 1925, it is considerably lower than the mortality recorded in February,

<sup>1</sup> From the Statistical Office, U. S. Public Health Service.

1923, when the rate was over 18 per 1,000. A comparison of the weekly rates during January and February with those in the same period last year is given in the accompanying table for a few of the larger cities showing a marked increase in recent weeks.

*Weekly mortality per 1,000 (all causes) in 68 cities in the United States and in certain selected cities in January and February, 1926, compared with 1925*

Week ended—	68 cities		Baltimore		Cincinnati		Detroit		New Orleans		San Antonio		Washington, D. C.	
	1925	1926	1925	1926	1925	1926	1925	1926	1925	1926	1925	1926	1925	1926
Jan. 9.....	14.6	15.6	20.0	17.7	17.1	21.5	10.9	13.1	18.1	22.8	18.2	14.7	13.3	18.6
Jan. 16.....	11.2	14.9	18.0	20.2	17.6	18.9	10.6	13.9	22.8	22.8	22.1	15.8	13.9	20.3
Jan. 23.....	14.2	14.9	17.0	18.5	18.3	17.5	10.6	11.6	20.4	22.8	18.2	20.3	14.7	19.0
Jan. 30.....	14.2	14.5	17.2	21.7	16.8	15.4	10.4	11.9	20.3	26.8	15.0	18.2	16.0	15.2
Feb. 6.....	14.4	15.2	16.7	22.2	16.8	20.8	11.4	13.1	20.8	27.7	16.3	20.8	15.0	19.7
Feb. 13.....	14.2	14.8	17.5	24.7	16.7	19.2	11.7	13.6	26.0	36.5	14.5	22.4	15.7	17.4
Feb. 20.....	14.5	16.4	16.8	23.0	16.7	19.5	12.1	14.4	26.4	29.4	15.0	21.1	16.7	24.8
Feb. 27.....	13.9	16.0	16.1	19.7	14.1	15.3	12.1	15.5	22.1	24.8	15.8	22.4	16.4	23.6

Some cities in each section of the country have experienced an increase in mortality. While data relating to cause are not yet available for all of the eight weeks' period covered in the foregoing table, reports from States and other sources point definitely to increases in pneumonia mortality and a rather marked increase in cases of influenza, grippe, and severe colds. The data available for January show an excess of deaths from influenza and pneumonia in some cities.

*Plague.*—Only eight of the 39 Asiatic ports reporting to the Singapore Bureau reported plague during the eight weeks ended January 16. The cases reported by the eight ports are given below.

*Plague cases reported by eight Asiatic ports to the Singapore Bureau, November 22, 1925, to January 16, 1926*

Port	Week ended—							
	Nov. 28	Dec. 5	Dec. 12	Dec. 19	Dec. 26	Jan. 2	Jan. 9	Jan. 16
Karachi <sup>1</sup> .....	0	0	0	1	0	0	0	0
Bombay <sup>1</sup> .....	0	0	1	0	0	0	2	0
Colombo.....	1	0	0	1	0	0	0	1
Rangoon <sup>1</sup> .....	2	2	1	0	3	0	3	5
Singapore.....	0	1	0	0	1	0	2	1
Surabaya.....	0	0	0	0	1	0	0	2
Makassar.....	0	2	3	1	1	0	1	1
Bangkok.....	2	1	0	0	0	0	1	1

<sup>1</sup> Deaths only reported.

Deaths from plague reported in the whole of India during the four weeks ended November 14 numbered 3,259, less than half the number reported in the corresponding period of 1924. The Bombay Presidency and Mysore were the only Provinces showing a greater prevalence than during the preceding year, and these two Provinces reported more than half the total number of cases.

In Java the plague incidence seems to have reached its maximum about the end of September as compared with December in the preceding year.

*Deaths from plague in Java, July 19 to November 11, 1925, compared with 1924, by four-week periods*

Four-week period 1924	Total deaths	Four-week period 1925	Total deaths
July 15-Aug. 11.....	704	July 19-Aug. 15.....	795
Aug. 12-Sept. 8.....	844	Aug. 16-Sept. 12.....	1,331
Sept. 9-Oct. 6.....	1,187	Sept. 13-Oct. 10.....	1,403
Oct. 7-Nov. 3.....	1,369	Oct. 11-Nov. 7.....	1,174
Nov. 4-Dec. 1.....	1,984		

Very little plague was reported in the Mediterranean area during December. Reports included one case at Beirut on December 6 and one at Patras on December 10. In the whole of Egypt only one case of plague, in the Province of Fayoum, was reported during December. No case was reported at Port Said from November 8 to the end of the year and none at Suez after October 2.

In Kenya, 72 cases of plague were reported in November, and in Uganda 75 cases, in both instances approximately one-half the number of cases occurring in October. In Madagascar the plague incidence was increasing, there having been 177 cases reported in October, 232 in November, and 400 in December.

*Cholera.*—The only ports reporting cases of cholera during December and the first two weeks of January were Calcutta, Madras, Negapatam, Manila, and Bangkok. No case had been reported at Shanghai since the second week of November, and none in any Japanese port since the last week in November. In Bangkok, where the number of new cases declined after the week ended December 12, when 93 cases were reported, the number of cases averaged 28 per week in the three weeks ended January 16.

The cholera outbreak in Siam began in Bangkok early in October and spread to 8 of the 18 Provinces. It is the most extensive cholera outbreak in Siam since 1919.

*Cholera cases and deaths reported in Siam, October to November, 1925*

Week ended—	Krung Deb <sup>1</sup>		Other Provinces	
	Cases	Deaths	Cases	Deaths
Oct. 3.....	0	0	7	4
Oct. 10.....	29	3	0	0
Oct. 17.....	27	11	0	0
Oct. 24.....	5	4	2	1
Oct. 31.....	19	12	0	0
Nov. 7.....	25	21	30	12
Nov. 14.....	27	21	110	62
Nov. 21.....	60	45	315	169
Nov. 28.....	81	44	491	226

<sup>1</sup> Includes Bangkok.

<sup>2</sup> 8 of these cases were imported.

Cholera was less prevalent in India down to the middle of November than during the autumn of 1924. It was entirely absent during nearly the whole year in the central Provinces and Bombay Presidency, where it was epidemic the year before. The southern districts of Madras Presidency are heavily infected and the incidence of the disease rose rather sharply in Bengal from the middle of October. The total number of deaths reported in India in the four weeks ended November 14 was 3,847 compared with 6,304 in the corresponding period of 1924.

A severe outbreak of cholera was reported in the French settlement of Pondicherry, in India, with 880 cases and 712 deaths in the month of December.

*Typhus fever.*--A small outbreak of typhus fever occurred in eastern Czechoslovakia in November and December. There were 8 cases reported in October, 86 in November, and 52 in December; 10 of the cases occurred in Slovakia and the remainder in Subcarpathian Ruthenia. Only one death was reported.

In Poland the incidence of typhus fever began to increase in November, and 88 cases were reported in the two weeks ended November 14, compared with 37 in the preceding two weeks.

*Smallpox.*--The incidence of smallpox in England increased very markedly during November and December, and during the first week of 1926 there were reported 255 cases, "the highest number of smallpox cases for any week during more than 20 years." The cases were confined to the north of England and the type has been the usual mild variety occurring in England for some years.

*Smallpox cases reported in England, by fortnightly periods, November 1, 1925, to January 9, 1926*

County	Fortnightly period ended--				
	Nov. 14	Nov. 28	Dec. 12	Dec. 26	Jan. 9
Northumberland.....	12	13	18	14	18
Durham.....	51	118	107	224	239
Yorkshire.....					
N. Riding.....	7	0	0	1	0
E. Riding.....	4	5	8	17	0
W. Riding.....	1	7	10	18	121
Nottingham.....	16	17	25	25	17
Derby.....	8	13	31	58	54
Isle of Ely.....	0	0	0	1	0
Total.....	120	173	250	358	458

A few cases of smallpox were reported during November or December by Switzerland, France, Italy, Greece, and Russia; but most European countries were apparently either entirely free from the disease or reported only sporadic cases. No information for Spain was received.



A recrudescence of smallpox occurred in December in the African countries bordering on the Mediterranean Sea. There were 441 cases in Algeria and 169 in Tunisia in December as against 140 and 79, respectively, in the preceding month. In Egypt 174 cases were reported during the four weeks ended December 23, compared with 62 cases in the preceding four weeks.

In India, the smallpox incidence was increasing during October and the first half of November and reached a level higher than was reported at the corresponding season in any of the preceding four years. The increase was most marked in the Punjab and the North-west Province, which were least affected by last spring's epidemic, and in Bengal and Bihar and Orissa.

The smallpox outbreak in Java and Madura declined rapidly, and only 353 cases were reported in the four weeks ended November 7 as against 917 in the preceding four weeks.

*Enteric fever.*—Fewer cases of enteric fever were reported during the last month of 1925 in all European countries than during the corresponding period of 1924. The report states:

It is probable that final returns for Europe as a whole will show less than half as many enteric fever cases during the fourth quarter of 1925 as during the corresponding quarter of 1924. It is to be hoped that this low incidence foreshadows a return of the former downward trend of the incidence of this disease, which has been arrested for a couple of years.

*Dysentery.*—Dysentery, as well as enteric fever, was less prevalent in Europe during the last months of 1925 than during the corresponding period of 1924. Reports for the principal European countries affected were as follows: 206 cases in Hungary in October 1925, as against 1,220 during the corresponding month of 1924; 29 cases in Czechoslovakia in November, as against 246 in the previous year; 92 for the same month in the Kingdom of the Serbs, Croats and Slovenes, as against 197; 42 cases and 2 deaths in Poland during the four weeks ended December 12, 1925, as against 327 cases and 64 deaths during the corresponding period of 1924.

*Scarlet fever and diphtheria.*—The incidence of scarlet fever diminished markedly in November and December in practically all European countries. The incidence of diphtheria in December showed no definite increase, but the course of the disease has not been so regular as that of scarlet fever.

*Measles.*—"There has been a marked increase in the number of measles cases in nearly all countries in the northern temperate belt for which information on this disease is available," says the report.

Cases of measles reported in various countries in 1924 and 1925

Month	Norway (cities)		Denmark		France		Hungary		Bulgaria		Russia (total)		Algeria		Mexico (deaths)	
	1924	1925	1924	1925	1924	1925	1924	1925	1924	1925	1924	1925	1924	1925	1924	1925
January	255	581	5,959	557	712	2,093	1,977	4,096	813	1,658	—	30,842	50	59	12	63
February	280	772	5,065	918	928	3,151	1,478	4,512	1,220	3,475	—	64,422	158	81	40	105
March	290	706	4,527	1,185	1,518	4,430	1,849	5,899	1,134	3,786	—	61,322	229	181	97	419
April	543	505	4,608	981	1,916	4,616	1,216	4,719	646	5,119	—	72,374	20	150	150	958
May	757	352	5,361	894	2,090	4,892	3,025	5,390	728	4,974	—	64,796	29	172	125	1,100
June	551	206	2,858	734	1,636	5,919	2,425	3,311	645	2,223	—	52,410	29	44	150	1,138
July	326	121	1,598	512	1,149	4,095	1,321	1,387	236	174	—	35,019	10	32	193	1,178
August	109	29	894	251	452	1,562	507	412	100	253	—	25,772	7	25	145	550
September	250	36	459	460	258	1,591	656	405	100	253	—	12,124	1	5	85	331
October	975	131	757	1,232	258	1,438	2,606	1,405	273	605	—	118,120	12	4	99	—
November	1,204	164	627	2,040	170	1,431	4,140	1,608	749	2,616	37,550	—	31	29	42	—
December	1,649	114	741	3,061	1,139	1,731	4,166	—	825	3,601	50,481	—	162	37	—	—
Four-week period ended—																
	Scotland (16 cities, deaths)		England (105 cities, deaths)		Switzerland		Italy		Poland		Iraq (deaths)		Egypt (deaths)		United States (27 States)	
Jan. 24	194	70	299	259	351	371	6,322	6,306	1,164	1,418	199	2	62	54	48,926	7,481
Feb. 21	162	38	330	276	393	409	6,469	6,462	1,201	2,520	106	92	83	43	58,718	10,514
Mar. 21	166	45	436	329	373	373	6,555	11,462	1,021	2,521	29	2	75	70	65,121	15,184
Apr. 18	137	24	359	532	422	422	6,555	11,462	457	3,005	39	3	160	173	54,848	16,337
May 16	125	30	498	384	159	594	8,062	12,018	356	3,676	20	2	239	421	41,434	20,202
June 13	66	19	310	304	194	494	6,546	12,010	356	4,377	70	31	312	654	29,296	21,063
July 11	75	13	102	111	290	497	6,302	8,393	1,870	3,325	134	9	331	1,022	14,427	10,148
Aug. 8	16	3	58	91	227	319	4,595	9,957	354	2,455	117	15	178	947	4,377	3,303
Sept. 5	20	0	34	56	111	129	2,072	4,758	157	1,197	33	11	51	824	1,357	1,394
Oct. 3	20	0	67	145	115	145	2,570	3,546	328	2,643	10	29	84	794	1,269	1,205
Nov. 3	59	34	168	164	203	513	2,071	4,059	593	3,493	10	29	81	443	2,121	3,128
Dec. 30	55	55	264	279	403	1,015	3,671	7,101	863	3,667	27	25	72	304	2,647	7,909
							5,095	6,381	1,549	—	4	33	72	552	4,530	12,582

1 Without the Ukraine, etc.

## SILICOSIS: A RÉSUMÉ OF THE LITERATURE

As an aid to physicians in the State of New York in diagnosing cases of silicosis, Dr. Leland E. Cofer, director of the bureau of industrial hygiene of the New York State Department of Labor, has had prepared a special bulletin<sup>2</sup> in which is presented a résumé of the medical literature with special reference to diagnosis. As stated in the foreword, this pamphlet was issued in anticipation of legislation affording compensation to workers in industry suffering from silicosis and in view of the fact that unrecognized silicosis has undoubtedly caused deaths among industrial workers which have been attributed to other causes, such as fibroid phthisis, pulmonary tuberculosis, and bronchitis. The bulletin states:

Careful studies which have been made of the mortality reports of different countries and cities throughout the world show that the death rate from tuberculosis of the lungs greatly varies. Silicosis is not a well-known disease and has not, therefore, been entered on the death certificate as a cause of death, but rather, the terms, 'phthisis pulmonalis, fibroid phthisis or tuberculosis of the lungs have been used. The term "phthisis" is unfortunate, unscientific and, as the statistics show, has been misleading. The sooner it is expunged from the vocabulary of the physician the better it will be, not only for the value of the records, but also the workers in dust and the reputation of tuberculosis.

The appendix contains quotations from the literature, the aim being to give in detail only those references which are likely to be of assistance to the general practitioner.

The bulletin is available free to all physicians who apply for it. Requests should be addressed to the Director, Bureau of Industrial Hygiene, New York State Department of Labor, 124 East Twenty-eighth Street, New York City.

## CALIFORNIA STATE BOARD OF HEALTH TO VACCINATE ALL STATE EMPLOYEES

The Weekly Bulletin for February 27, 1926, issued by the California State Board of Health, in calling attention to the occurrence of the severe type of smallpox in that State, notes that all employees of the State board of health have been instructed to be vaccinated immediately. The board has also made provision for vaccinating all other State employees who desire to be vaccinated.

From January 2 to February 20, 1926, the Bulletin states that there were reported to the State board of health 964 cases of smallpox, with 86 known deaths, indicating that the present type of disease is not the mild variety which has been more or less prevalent in the West for several years.

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<sup>2</sup> Special bulletin: Silicosis—A Résumé of the Literature Arranged for the Use of the Physicians in the State of New York.

## ABSTRACT OF UNITED STATES SUPREME COURT DECISION RELATING TO BEDDING

*Statutory provision prohibiting the use of shoddy in manufacture of bedding held violative of Federal Constitution.*—(United States Supreme Court; *Weaver v. The Palmer Bros. Co.*; decided March 8, 1926.) One of the provisions of Act No. 314 of the Pennsylvania session laws of 1923, providing for the regulation of the manufacture, sterilization, and sale of bedding, prohibited the use of "shoddy," or any fabric or material from which "shoddy" is constructed, in the making, remaking, or renovating of any mattress, pillow, bolster, feather bed, comfortable, cushion, or article of upholstered furniture. In a suit brought by a Connecticut corporation which manufactured comfortables in that State and sold them there and in other States, the United States District Court for the Western District of Pennsylvania found that the statute infringed the corporation's constitutional rights in so far as it absolutely prohibited the use of shoddy in the manufacture of comfortables, and to that extent the court's decree restrained the enforcement of the statute. This decree was affirmed by the United States Supreme Court, and below are reproduced excerpts from that court's opinion:

Appellant claims that, in order properly to protect health, bedding material should be sterilized. The record shows that, for the sterilization of secondhand materials from which it makes shoddy, appellee uses effective steam sterilizers. There is no controversy between the parties as to whether shoddy may be rendered harmless by disinfection or sterilization. While it is sometimes made from filthy rags, and from other materials that have been exposed to infection, it stands undisputed that all dangers to health may be eliminated by appropriate treatment at low cost. In the course of its decision the District Court said, "It is conceded by all parties that shoddy may be rendered perfectly harmless by sterilization." The act itself impliedly determines that proper sterilization is practicable and effective. It permits the use of secondhand materials and new and secondhand feathers when sterilized, and it regulates processes for such sterilization.

There was no evidence that any sickness or disease was ever caused by the use of shoddy. And the record contains persuasive evidence and by citation discloses the opinions of scientists eminent in fields related to public health that the transmission of disease-producing bacteria is almost entirely by immediate contact with, or close proximity to, infected persons; that such bacteria perish rapidly when separated from human or animal organisms; and that there is no probability that such bacteria or vermin likely to carry them survive after the period usually required for the gathering of the materials, the production of shoddy, and the manufacture and the shipping of comfortables. This evidence tends strongly to show that in the absence of sterilization or disinfection there would be little, if any, danger to the health of the users of comfortables filled with shoddy, new or secondhand; and confirms the conclusion that all danger from the use of shoddy may be eliminated by sterilization. \* \* \*

\* \* \* Here, it is established that sterilization eliminates the dangers, if any, from the use of shoddy. As against that fact, the provision in question can not be sustained as a measure to protect health. And the fact that the act permits the use of numerous materials, prescribing sterilization if they are second-hand, also serves to show that the prohibition of the use of shoddy, new or old, even when sterilized, is unreasonable and arbitrary.

Nor can such prohibition be sustained as a measure to prevent deception. In order to ascertain whether the materials used and the finished articles conform to its requirements, the act expressly provides for inspection of the places where such articles are made, sold or kept for sale. Every article of bedding is required to bear a tag showing the materials used for filling and giving the names and addresses of makers and vendors, and bearing the word "secondhand" where there has been prior use, and giving the number of the permit for sterilizing and disinfecting where secondhand materials or feathers are used for filling. Obviously, these regulations or others that are adequate may be effectively applied to shoddy-filled articles.

The constitutional guaranties may not be made to yield to mere convenience. *Schlesinger v. Wisconsin*, decided March 1, 1926, — U. S.—. The business here involved is legitimate and useful; and, while it is subject to all reasonable regulation, the absolute prohibition of the use of shoddy in the manufacture of comfortables is purely arbitrary and violates the due process clause of the fourteenth amendment. *Adams v. Tanner*, 244 U. S. 590, 596; *Meyer v. Nebraska*, 262 U. S. 390; *Burns Baking Co. v. Bryan*, 264 U. S. 504.

## DEATHS DURING WEEK ENDED MARCH 6, 1926

*Summary of information received by telegraph from industrial insurance companies for week ended March 6, 1926, and corresponding week of 1925. (From the Weekly Health Index, March 9, 1926, issued by the Bureau of the Census, Department of Commerce)*

	Week ended Mar. 6, 1926	Corresponding week 1925
Policies in force.....	63, 525, 389	58, 897, 864
Number of death claims.....	14, 676	12, 497
Death claims per 1,000 policies in force, annual rate..	12. 0	11. 1

*Deaths from all causes in certain large cities of the United States during the week ended March 6, 1926, infant mortality, annual death rate, and comparison with corresponding week of 1925. (From the Weekly Health Index, March 9, 1926, issued by the Bureau of the Census, Department of Commerce)*

City	Week ended Mar. 6, 1926		Annual death rate per 1,000 corresponding week 1925	Deaths under 1 year		Infant mortality rate, week ended Mar. 6, 1926 <sup>1</sup>
	Total deaths	Death rate <sup>1</sup>		Week ended Mar. 6, 1926	Corresponding week, 1925	
Total (68 cities) .....	8,965	16.2	14.6	1,028	965	<sup>3</sup> 84
Akron.....	46			7	7	74
Albany.....	51	22.6	17.7	2	4	42
Atlanta.....	80			6	5	
White.....	51			2		
Colored.....	29	( <sup>5</sup> )		4		
Baltimore.....	258	16.9	16.9	23	21	67
White.....	194			17		61
Colored.....	64	( <sup>5</sup> )		6		97
Birmingham.....	110	27.9	16.5	16	8	
White.....	53			5		
Colored.....	57	( <sup>5</sup> )		11		
Boston.....	274	18.3	18.9	33	35	93
Bridgeport.....	43			5	6	85
Buffalo.....	149	14.4	16.0	16	20	67
Cambridge.....	38	16.6	18.7	4	9	66
Camden.....	66	26.8	15.4	6	8	101
Canton.....	16	7.9	11.3	7	4	156
Chicago.....	863	14.0	14.2	86	115	70
Cincinnati.....	127	16.2	17.2	4	7	25
Cleveland.....	213	12.1	11.9	42	20	100
Columbus.....	94	17.5	15.3	14	11	120
Dallas.....	60	10.2	16.4	9	8	
White.....	40			3		
Colored.....	20	( <sup>5</sup> )		6		
Denver.....	93	17.3	11.1	9	10	
Des Moines.....	33	11.5	13.6	4	2	67
Detroit.....	365	15.3	13.5	70	62	113
Duluth.....	11	5.2	6.1	0	2	0
El Paso.....	36	17.9	16.9	9	3	
Erie.....	42			4	2	76
Fall River.....	35	11.1	15.4	10	8	145
Flint.....	20	8.0	5.6	4	3	66
Fort Worth.....	35	12.0	9.6	4	4	
White.....	31			4		
Colored.....	4	( <sup>5</sup> )		0		
Grand Rapids.....	30	10.2	13.2	4	3	58
Houston.....	69	21.8	16.8	3	8	
White.....	50			3		
Colored.....	19	( <sup>5</sup> )		0		
Indianapolis.....	109	15.8	15.7	16	14	117
White.....	96			11		93
Colored.....	13	( <sup>5</sup> )		5		275
Jacksonville, Fla.....	45	22.4	19.9	4	6	83
White.....	21			0		0
Colored.....	24	( <sup>5</sup> )		4		229
Jersey City.....	95	15.7	14.1	11	8	78
Kansas City, Kans.....	20	13.0	21.1	3	9	52
White.....	19			1		21
Colored.....	10	( <sup>5</sup> )		2		293
Kansas City, Mo.....	99	14.0	17.7	18	10	
Los Angeles.....	264			16	26	44
Louisville.....	87	15.0	18.5	7	9	60
White.....	59			4		40
Colored.....	28	( <sup>5</sup> )		3		188
Lowell.....	26	12.3	18.0	5	10	93
Lynn.....	26	13.2	14.2	2	7	50
Memphis.....	79	23.6	21.2	13	8	
White.....	41			5		
Colored.....	38	( <sup>5</sup> )		8		
Milwaukee.....	116	12.1	14.4	14	19	65
Minneapolis.....	89	10.9	15.6	8	19	45
Nashville.....	63	24.1	21.8	9	7	
White.....	41			4		
Colored.....	22	( <sup>5</sup> )		5		
New Bedford.....	24	10.5	14.0	10	6	174
New Haven.....	42	12.2	12.8	3	8	41
New Orleans.....	168	21.1	18.4	18	9	
White.....	107			12		
Colored.....	61	( <sup>5</sup> )		6		

<sup>1</sup> Footnotes at end of table.

*Deaths from all causes in certain large cities of the United States during the week ended March 6, 1926, infant mortality, annual death rate, and comparison with corresponding week of 1925—Continued*

City	Week ended Mar. 6, 1926		Annual death rate per 1,000 corresponding week 1925	Deaths under 1 year		Infant mortality rate, week ended Mar. 6, 1926
	Total deaths	Death rate <sup>1</sup>		Week ended Mar. 6, 1926	Corresponding week, 1925	
New York.....	1,851	16.4	13.6	201	155	81
Bronx Borough.....	244	14.6	10.2	15	15	50
Brooklyn Borough.....	633	15.0	12.0	79	56	80
Manhattan Borough.....	768	20.6	17.9	87	72	96
Queens Borough.....	155	11.3	8.4	18	8	82
Richmond Borough.....	51	19.2	26.0	2	4	35
Newark, N. J.....	140	16.1	13.5	20	10	56
Norfolk.....	36			6	3	112
White.....	10			0		0
Colored.....	26	( <sup>2</sup> )		6		298
Oakland.....	50	10.3	9.0	8	7	93
Oklahoma City.....	24			1	3	
Omaha.....	52	12.8	13.5	6	8	63
Paterson.....	63	23.2	9.6	4	1	70
Philadelphia.....	870	22.9	13.1	94	55	125
Pittsburgh.....	217	17.9	13.8	33	14	110
Portland, Oreg.....	63	11.6	14.4	5	8	51
Providence.....	63	12.3	12.7	7	9	58
Richmond.....	73	20.4	18.2	5	6	63
White.....	43			1		20
Colored.....	30	( <sup>2</sup> )		4		140
Rochester.....	122	20.1	14.2	14	12	112
St. Louis.....	237	15.0	15.7	9	18	
St. Paul.....	65	13.8	14.6	3	8	27
Salt Lake City.....	33	13.1	11.9	4	1	55
San Antonio.....	64	16.8	15.3	12	6	
San Diego.....	35	17.2	19.7	1	5	21
San Francisco.....	140	13.1	11.8	4	14	24
Schenectady.....	16	9.0	12.9	1	5	29
Seattle.....	74			12	6	111
Somerville.....	26	13.7	16.3	4	6	104
Springfield, Mass.....	35	12.8	15.0	6	6	87
Syracuse.....	67	19.2	15.8	9	6	114
Tacoma.....	37	18.5	14.0	11	4	257
Toledo.....	65	11.8	15.1	6	16	58
Trenton.....	57	22.5	17.4	3	9	50
Utica.....	34	17.4	15.4	5	1	110
Washington, D. C.....	194	20.3	18.7	10	23	57
White.....	115			5		41
Colored.....	79	( <sup>2</sup> )		5		91
Waterbury.....	34			10	5	215
Wilmington, Del.....	76	32.5	14.5	8	6	188
Worcester.....	63	17.2	17.8	7	0	81
Yonkers.....	29	13.3	8.7	5	0	112
Youngstown.....	40	13.0	13.4	3	4	38

<sup>1</sup> Annual rate per 1,000 population.

<sup>2</sup> Deaths under 1 year per 1,000 births. Cities left blank are not in the registration area for births.

<sup>3</sup> Data for 63 cities.

<sup>4</sup> Deaths for week ended Friday, Mar. 5, 1926.

<sup>5</sup> In the cities for which deaths are shown by color, the colored population in 1920 constituted the following percentages of the total population: Atlanta 31, Baltimore 15, Birmingham 39, Dallas 15, Fort Worth 14, Houston 25, Kansas City, Kans., 14, Louisville 17, Memphis 38, Nashville 30, New Orleans 26, Norfolk 38, Richmond 32, and Washington, D. C., 25.

# PREVALENCE OF DISEASE

*No health department, State or local, can effectively prevent or control disease without knowledge of when, where, and under what conditions cases are occurring*

## UNITED STATES

### CURRENT WEEKLY STATE REPORTS

These reports are preliminary, and the figures are subject to change when later returns are received by the State health officers

#### Reports for Week Ended March 13, 1926

ALABAMA		Cases	CALIFORNIA		Cases
Cerebrospinal meningitis.....	2		Cerebrospinal meningitis—Fresno .....	1	
Chicken pox.....	84		Chicken pox.....	421	
Diphtheria.....	9		Diphtheria.....	88	
Influenza.....	1,922		Influenza.....	63	
Lethargic encephalitis.....	1		Lethargic encephalitis—Sacramento.....	1	
Malaria.....	6		Measles.....	148	
Measles.....	98		Mumps.....	440	
Mumps.....	84		Polioomyelitis:		
Ophthalmia neonatorum.....	2		Long Beach.....	1	
Pellagra.....	2		Palo Alto.....	1	
Pneumonia.....	194		Scarlet fever.....	135	
Polioomyelitis.....	1		Smallpox:		
Scarlet fever.....	23		Los Angeles.....	57	
Smallpox.....	32		Oakland.....	29	
Tuberculosis.....	33		Sonoma County.....	45	
Typhoid fever.....	7		Scattering.....	38	
Whooping cough.....	28		Typhoid fever.....	3	
			Whooping cough.....	65	
ARIZONA			COLORADO		
Chicken pox.....	40		Chicken pox.....	56	
Diphtheria.....	2		Conjunctivitis (epidemic).....	3	
Influenza.....	38		Diphtheria.....	24	
Malta fever.....	1		German measles.....	2	
Mumps.....	8		Influenza.....	6	
Pneumonia.....	2		Measles.....	35	
Scarlet fever.....	20		Mumps.....	3	
Trachoma.....	1		Pneumonia.....	10	
Tuberculosis.....	30		Scarlet fever.....	33	
			Septic sore throat.....	6	
ARKANSAS			Tuberculosis.....	46	
Chicken pox.....	17		Typhoid fever.....	29	
Diphtheria.....	2		Whooping cough.....	78	
Influenza.....	284				
Malaria.....	8		CONNECTICUT		
Measles.....	5		Cerebrospinal meningitis.....	1	
Mumps.....	15		Chicken pox.....	72	
Pellagra.....	2		Conjunctivitis (infectious).....	2	
Scarlet fever.....	6		Diphtheria.....	48	
Smallpox.....	3		German measles.....	9	
Trachoma.....	7		Influenza.....	99	
Tuberculosis.....	3				



CONNECTICUT—continued	Cases
Measles.....	1,284
Mumps.....	31
Pneumonia (broncho).....	102
Pneumonia (lohar).....	91
Polioimyelitis.....	2
Scarlet fever.....	82
Septic sore throat.....	1
Tuberculosis (all forms).....	59
Whooping cough.....	117

## DELAWARE

Cerebrospinal meningitis.....	1
Chicken pox.....	2
Diphtheria.....	6
Influenza.....	34
Measles.....	106
Pneumonia.....	3
Scabies.....	1
Scarlet fever.....	8
Tuberculosis.....	3
Whooping cough.....	6

## FLORIDA

Cerebrospinal meningitis.....	1
Chicken pox.....	33
Diphtheria.....	9
Influenza.....	64
Malaria.....	1
Measles.....	17
Mumps.....	26
Pneumonia.....	12
Scarlet fever.....	9
Smallpox.....	152
Tuberculosis.....	12
Typhoid fever.....	3
Whooping cough.....	11

## GEORGIA

Cerebrospinal meningitis.....	1
Chicken pox.....	40
Conjunctivitis (acute).....	1
Diphtheria.....	10
Dysentery.....	1
Hookworm disease.....	5
Influenza.....	1,332
Malaria.....	14
Measles.....	84
Mumps.....	61
Pellagra.....	4
Pneumonia.....	128
Scarlet fever.....	8
Septic sore throat.....	5
Smallpox.....	18
Tetanus.....	1
Tuberculosis.....	25
Typhoid fever.....	2
Whooping cough.....	38

## IDAHO

Cerebrospinal meningitis:	
Coeur d'Alene.....	1
Post Falls.....	4
Chicken pox.....	11
Diphtheria.....	2
Influenza.....	8
Measles.....	2

IDAHO—continued	Cases
Mumps.....	27
Rocky Mountain spotted fever—Boise.....	1
Scarlet fever.....	9
Smallpox.....	8
Whooping cough.....	13

## ILLINOIS

Cerebrospinal meningitis:	
Cook County.....	1
De Kalb County.....	1
Logan County.....	1
Diphtheria.....	66
Influenza.....	521
Lethargic encephalitis:	
Cook county.....	1
Effingham County.....	1
Fayette County.....	1
Measles.....	1,091
Pneumonia.....	808
Polioimyelitis—Stark County.....	1
Scarlet fever.....	536
Smallpox.....	22
Tuberculosis.....	336
Typhoid fever.....	11
Whooping cough.....	223

## INDIANA

Cerebrospinal meningitis.....	3
Chicken pox.....	91
Diphtheria.....	31
Influenza.....	374
Measles.....	1,535
Mumps.....	3
Pneumonia.....	33
Scarlet fever.....	226
Smallpox.....	86
Tuberculosis.....	68
Typhoid fever.....	2
Whooping cough.....	112

## IOWA

Chicken pox.....	19
Diphtheria.....	15
German measles.....	54
Measles.....	102
Mumps.....	28
Pneumonia.....	3
Scarlet fever.....	43
Smallpox.....	30
Tuberculosis.....	11
Whooping cough.....	20

## KANSAS

Chicken pox.....	74
Diphtheria.....	18
German measles.....	5
Influenza.....	58
Measles.....	267
Mumps.....	32
Pneumonia.....	49
Scarlet fever.....	80
Smallpox:	
Salina.....	12
Scatterling.....	14
Tuberculosis.....	48
Typhoid fever.....	2
Vincent's angina.....	1
Whooping cough.....	112

LOUISIANA		Cases	MASSACHUSETTS—continued		Cases
Diphtheria	16		Tuberculosis (pulmonary)	116	
Influenza	537		Tuberculosis (other forms)	26	
Leprosy	1		Typhoid fever	4	
Malaria	5		Whooping cough	527	
Pneumonia	40				
Poliomyelitis	2				
Scarlet fever	14				
Smallpox	36				
Tuberculosis	45				
Typhoid fever	3				
Whooping cough	19				
MAINE			MICHIGAN		
Chicken pox	36		Diphtheria	82	
Diphtheria	5		Measles	2,043	
German measles	20		Pneumonia	401	
Influenza	8		Scarlet fever	378	
Measles	269		Smallpox	4	
Mumps	50		Tuberculosis	55	
Paratyphoid fever	1		Typhoid fever	5	
Pneumonia	39		Whooping cough	275	
Scarlet fever	21				
Tuberculosis	12				
Typhoid fever	2				
Vincent's angina	5				
Whooping cough	49				
MARYLAND <sup>1</sup>			MINNESOTA		
Cerebrospinal meningitis	2		Cerebrospinal meningitis	1	
Chicken pox	106		Chicken pox	168	
Diphtheria	23		Diphtheria	53	
Dysentery	1		Influenza	3	
German measles	1		Measles	233	
Influenza	273		Pneumonia	2	
Lethargic encephalitis	1		Scarlet fever	457	
Malaria	1		Smallpox	7	
Measles	878		Tuberculosis	46	
Mumps	78		Typhoid fever	5	
Pneumonia (broncho)	90		Whooping cough	43	
Pneumonia (lobar)	85				
Scarlet fever	41				
Septic sore throat	1				
Tuberculosis	67				
Typhoid fever	2				
Whooping cough	61				
MASSACHUSETTS			MISSISSIPPI		
Cerebrospinal meningitis	1		Diphtheria	4	
Chicken pox	217		Influenza	1,233	
Conjunctivitis (suppurative)	8		Scarlet fever	7	
Diphtheria	57		Smallpox	16	
German measles	266		Typhoid fever	3	
Hookworm disease	1				
Influenza	65				
Lethargic encephalitis	2				
Malaria	1				
Measles	1,283				
Mumps	115				
Ophthalmia neonatorum	24				
Pneumonia (lobar)	161				
Poliomyelitis	1				
Scarlet fever	251				
Septic sore throat	3				
Tetanus	2				
Trachoma	1				
			MISSOURI		
			Cerebrospinal meningitis	1	
			Chicken pox	99	
			Diphtheria	85	
			Influenza	42	
			Measles	547	
			Mumps	39	
			Ophthalmia neonatorum	1	
			Pneumonia	18	
			Poliomyelitis	1	
			Rabies (in animals)	7	
			Scarlet fever	208	
			Smallpox	6	
			Trachoma	4	
			Tuberculosis	31	
			Typhoid fever	1	
			Whooping cough	104	
			MONTANA		
			Chicken pox	25	
			Diphtheria	5	
			German measles	19	
			Influenza	12	
			Measles	6	
			Mumps	47	
			Scarlet fever	43	
			Septic sore throat	1	
			Smallpox	7	
			Tuberculosis	4	
			Whooping cough	15	

<sup>1</sup> Week ended Friday.

NEBRASKA	Cases
Cerebrospinal meningitis.....	1
Chicken pox.....	16
Diphtheria.....	4
Measles.....	36
Mumps.....	4
Pneumonia.....	3
Scarlet fever.....	52
Smallpox.....	22
Tuberculosis.....	5
Typhoid fever.....	1
Whooping cough.....	32

NEW JERSEY	Cases
Anthrax.....	2
Cerebrospinal meningitis.....	3
Chicken pox.....	246
Diphtheria.....	57
Influenza.....	243
Measles.....	2,050
Pneumonia.....	384
Polioomyelitis.....	1
Scarlet fever.....	204
Trachoma.....	1
Typhoid fever.....	8
Whooping cough.....	106

NEW MEXICO	Cases
Chicken pox.....	10
Conjunctivitis.....	10
Diphtheria.....	8
German measles.....	2
Influenza.....	24
Measles.....	1
Mumps.....	7
Pneumonia.....	25
Rabies (in animals).....	1
Scarlet fever.....	7
Smallpox.....	5
Tuberculosis.....	24
Typhoid fever.....	1
Whooping cough.....	13

NEW YORK  
(Exclusive of New York City)

Anthrax.....	1
Chicken pox.....	371
Diphtheria.....	77
German measles.....	233
Influenza.....	2,008
Lethargic encephalitis.....	4
Measles.....	1,241
Mumps.....	215
Ophthalmia neonatorum.....	1
Pneumonia.....	660
Polioomyelitis.....	1
Scarlet fever.....	265
Septic sore throat.....	5
Smallpox.....	4
Typhoid fever.....	14
Vincent's angina.....	8
Whooping cough.....	507

<sup>1</sup>Deaths.

NORTH CAROLINA	Cases
Cerebrospinal meningitis.....	1
Chicken pox.....	216
Diphtheria.....	22
German measles.....	222
Measles.....	259
Scarlet fever.....	27
Smallpox.....	37
Typhoid fever.....	1
Whooping cough.....	143

OKLAHOMA  
(Exclusive of Tulsa and Oklahoma City)

Chicken pox.....	22
Diphtheria.....	15
Influenza.....	1,846
Malaria.....	33
Measles.....	38
Mumps.....	6
Pellagra.....	5
Pneumonia.....	184
Scarlet fever.....	36
Smallpox.....	15
Typhoid fever.....	2
Whooping cough.....	23

OREGON	Cases
Cerebrospinal meningitis.....	2
Chicken pox.....	29
Diphtheria.....	25
Influenza.....	190
Measles.....	20
Mumps.....	19
Pneumonia.....	24
Scarlet fever.....	22
Smallpox.....	20
Tuberculosis.....	6
Typhoid fever.....	1
Whooping cough.....	49

PENNSYLVANIA	Cases
Anthrax—Philadelphia.....	1
Cerebrospinal meningitis:	
Manheim Township <sup>1</sup> .....	1
Philadelphia.....	2
Pittsburgh.....	1
Plymouth.....	1
Chicken pox.....	550
Diphtheria.....	170
German measles.....	47
Impetigo contagiosa.....	11
Malaria.....	4
Measles.....	3,161
Mumps.....	256
Ophthalmia neonatorum—Philadelphia.....	1
Pneumonia.....	155
Scabies.....	16
Scarlet fever.....	529
Trachoma:	
McKees Rocks.....	1
Philadelphia.....	1
Tuberculosis.....	190
Typhoid fever.....	39
Whooping cough.....	433

<sup>1</sup> County not specified.

RHODE ISLAND		Cases	VERMONT		Cases
Chicken pox.....		5	Chicken pox.....		17
Diphtheria.....		4	Influenza.....		9
German measles.....		6	Measles.....		13
Influenza.....		55	Mumps.....		23
Measles.....		269	Scarlet fever.....		16
Mumps.....		1	Typhoid fever.....		1
Pneumonia.....		8	Whooping cough.....		39
Scarlet fever.....		7			
Tuberculosis.....		5			
Whooping cough.....		19			
SOUTH DAKOTA			WASHINGTON		
Chicken pox.....		23	Cerebrospinal meningitis:		
Diphtheria.....		3	Seattle.....		5
Measles.....		27	Snohomish County.....		1
Mumps.....		88	Spokane.....		2
Pneumonia.....		6	Stevens County.....		1
Scarlet fever.....		50	Yakima County.....		1
Septic sore throat.....		1	Chicken pox.....		82
Smallpox.....		4	Diphtheria.....		15
Tuberculosis.....		1	German measles.....		24
Typhoid fever.....		2	Influenza.....		1
Whooping cough.....		1	Measles.....		26
			Mumps.....		99
			Pneumonia.....		5
			Scarlet fever.....		55
			Smallpox:		
			Tacoma.....		35
			Yakima County.....		11
			Scattering.....		48
			Tuberculosis.....		69
			Typhoid fever.....		2
			Whooping cough.....		40
TENNESSEE			WEST VIRGINIA		
Anthrax—Franklin County.....		1	Diphtheria.....		7
Cerebrospinal meningitis—Gibson County.....		1	Measles.....		138
Chicken pox.....		42	Scarlet fever.....		14
Diphtheria.....		8	Smallpox.....		4
Dysentery.....		2			
Influenza.....		646			
Malaria.....		7			
Measles.....		410			
Mumps.....		20			
Pellagra.....		5			
Pneumonia.....		124			
Scarlet fever.....		12			
Smallpox.....		18			
Tuberculosis.....		37			
Typhoid fever.....		2			
Whooping cough.....		9			
TEXAS			WISCONSIN		
Chicken pox.....		48	Milwaukee:		
Diphtheria.....		36	Cerebrospinal meningitis.....		1
Influenza.....		1,162	Chicken pox.....		117
Measles.....		5	Diphtheria.....		10
Mumps.....		35	German measles.....		5
Pneumonia.....		69	Influenza.....		1
Scarlet fever.....		17	Measles.....		87
Smallpox.....		43	Mumps.....		57
Tuberculosis.....		41	Ophthalmia neonatorum.....		1
Typhoid fever.....		1	Pneumonia.....		28
Whooping cough.....		32	Scarlet fever.....		22
			Tuberculosis.....		14
			Typhoid fever.....		1
			Whooping cough.....		44
			Scattering:		
			Chicken pox.....		110
			Diphtheria.....		25
			German measles.....		25
			Influenza.....		114
			Measles.....		402
			Mumps.....		147
			Pneumonia.....		25
			Scarlet fever.....		121
			Smallpox.....		12
			Tuberculosis.....		20
			Typhoid fever.....		6
			Whooping cough.....		128
UTAH					
Cerebrospinal meningitis:					
Ogden.....		1			
Salt Lake City.....		2			
Chicken pox.....		56			
Diphtheria.....		11			
Influenza.....		10			
Measles.....		1			
Mumps.....		89			
Pneumonia.....		3			
Smallpox.....		1			
Typhoid fever.....		1			
Whooping cough.....		62			

WYOMING	Cases	WYOMING—continued	Cases
Chicken pox.....	8	Pneumonia.....	6
German measles.....	2	Scarlet fever.....	17
Influenza.....	41	Typhoid fever.....	1
Measles.....	5	Whooping cough.....	11
Mumps.....	8		

### Reports for Week Ended March 6, 1926

CONNECTICUT	Cases	IOWA	Cases
Chicken pox.....	73	Cerebrospinal meningitis.....	4
Conjunctivitis (infectious).....	1	Chicken pox.....	75
Diphtheria.....	53	Diphtheria.....	14
German measles.....	17	German measles.....	62
Influenza.....	20	Measles.....	89
Lethargic encephalitis.....	1	Mumps.....	83
Measles.....	1,037	Pneumonia.....	19
Mumps.....	6	Rabies.....	1
Pneumonia (broncho).....	40	Scarlet fever.....	65
Pneumonia (lobar).....	57	Smallpox.....	33
Scarlet fever.....	95	Tetanus.....	1
Tuberculosis (all forms).....	31	Tuberculosis.....	16
Typhoid fever.....	4	Whooping cough.....	14
Whooping cough.....	88		

DISTRICT OF COLUMBIA	Cases	NORTH DAKOTA	Cases
Chicken pox.....	31	Chicken pox.....	29
Diphtheria.....	19	Diphtheria.....	13
Influenza.....	8	German measles.....	129
Lethargic encephalitis.....	2	Influenza.....	27
Measles.....	148	Measles.....	30
Pneumonia.....	119	Mumps.....	35
Polio-myelitis.....	1	Pneumonia.....	33
Scarlet fever.....	21	Scarlet fever.....	80
Tuberculosis.....	28	Smallpox.....	10
Whooping cough.....	22	Tuberculosis.....	8
		Whooping cough.....	5

### Report for Week Ended February 27, 1926

NORTH DAKOTA	Cases	NORTH DAKOTA—continued	Cases
Chicken pox.....	34	Polio-myelitis.....	7
Diphtheria.....	6	Scarlet fever.....	132
German measles.....	108	Smallpox.....	3
Influenza.....	8	Tuberculosis.....	2
Measles.....	30	Typhoid fever.....	3
Mumps.....	37	Whooping cough.....	22
Pneumonia.....	37		

### SUMMARY OF MONTHLY REPORTS FROM STATES

The following summary of monthly State reports is published weekly and covers only those States from which reports are received during the current week:

State	Cerebro-spinal meningitis	Diphtheria	Influenza	Malaria	Measles	Polio-myelitis	Polio-myelitis	Scarlet fever	Smallpox	Typhoid fever
<i>January, 1926</i>										
Arkansas.....	1	24	710	74	3	14	0	31	13	19
California.....	29	437	3,224	0	218	4	7	729	442	50
Colorado.....	1	106	8		40		1	143	1	8
Georgia.....	3	83	1,414	59	171	7	1	59	71	49
Virginia.....	9	228	3,809	39	933	6	1	306	92	22
<i>February, 1926</i>										
Arizona.....	0	20	220		3		0	45	3	2
Connecticut.....	1	183	54		2,591		1	331	0	11
Indiana.....	1	144	368		4,953		7	1,056	419	14
Vermont.....	0	7		0	56	0	0	83	0	3
Wisconsin.....	10	236	177	0	1,280	0	2	712	44	16

## LEPROSY ON VESSEL

On February 24, 1926, a case of leprosy was discovered at San Francisco quarantine station in a steerage passenger from Honolulu. The patient is being returned to the Hawaiian Islands.

## PNEUMONIA (ALL FORMS) AND INFLUENZA

Deaths reported in large cities of the United States during three-week periods ended March 7, 1925, and March 6, 1926

## PNEUMONIA (ALL FORMS)

	Week ended—					
	Feb. 21, 1925	Feb. 20, 1926	Feb. 28, 1925	Feb. 27, 1926	Mar. 7, 1925	Mar. 6, 1926
Atlanta.....	24	34	18	22	12	9
Baltimore.....	51	70	50	63	48	48
Birmingham.....	13	14	16	17	9	21
Boston.....	49	28	53	28	41	39
Bridgeport.....	2	8	5	7	6	5
Buffalo.....	16	22	22	18	17	—
Cambridge, Mass.....	3	1	11	1	10	3
Camden.....	8	13	5	9	9	22
Canlon.....	5	3	3	—	5	3
Chicago.....	97	107	96	91	117	127
Cincinnati.....	10	11	—	10	13	9
Cleveland.....	35	27	27	30	22	36
Columbus.....	8	7	9	4	12	7
Dallas.....	18	24	7	13	5	16
Denver.....	9	15	19	31	6	17
Detroit.....	43	69	42	68	45	77
Duluth.....	1	2	5	2	2	—
Elizabeth.....	5	—	5	—	1	—
El Paso.....	6	3	4	4	—	2
Erie.....	3	2	4	3	3	4
Fall River.....	6	3	5	1	0	4
Flint.....	1	5	6	5	3	2
Fort Worth.....	6	14	4	8	3	15
Grand Rapids.....	4	1	6	2	—	2
Hartford.....	9	7	—	5	13	5
Houston.....	13	25	10	15	5	27
Indianapolis.....	30	15	22	21	29	22
Kansas City, Mo.....	20	13	31	—	19	—
Los Angeles.....	31	35	27	26	27	26
Louisville.....	12	9	16	7	13	17
Lowell.....	3	—	5	—	5	—
Lynn.....	1	7	7	—	3	—
Memphis.....	10	21	8	19	13	10
Minneapolis.....	9	11	10	3	12	9
Nashville.....	5	10	3	6	5	6
New Bedford.....	3	2	9	5	10	4
New Haven.....	7	3	6	3	3	7
New Orleans.....	25	29	23	19	16	19
New York.....	227	348	195	356	233	361
Newark.....	16	18	19	19	17	—
Norfolk.....	3	7	6	8	5	7
Oakland.....	5	3	—	6	4	7
Oklahoma City.....	2	4	3	2	3	7
Omaha.....	10	10	9	10	10	10
Philadelphia.....	93	125	58	166	79	210
Pittsburgh.....	50	38	46	35	38	40
Portland, Oreg.....	9	13	11	9	5	4
Providence.....	12	8	14	11	14	7
Reading.....	—	—	2	2	1	6
Richmond.....	5	30	14	17	6	10
Rochester.....	5	7	4	14	8	26
St. Paul.....	6	8	7	8	10	11
Salt Lake City.....	8	—	3	8	3	4
San Antonio.....	9	28	8	1	8	16
San Diego.....	7	3	6	5	9	2
San Francisco.....	13	9	6	10	3	5
Schenectady.....	3	1	4	5	5	2
Somerville.....	4	4	4	4	7	4
Springfield, Mass.....	3	1	—	6	2	1
Syracuse.....	7	4	12	6	9	5
Tacoma.....	4	1	3	2	1	—
Toledo.....	4	5	13	3	8	5
Tranton.....	4	6	3	10	4	13
Washington.....	16	65	19	65	22	39
Waterbury.....	8	3	4	3	2	4
Wilmington, Del.....	—	9	—	18	2	25
Worcester.....	3	6	2	8	2	4
Youngstown.....	6	6	10	3	11	4

*Deaths reported in large cities of the United States during three-week periods ended March 7, 1925, and March 6, 1926—Continued*

## INFLUENZA

	Week ended—					
	Feb. 21, 1925	Feb. 20, 1926	Feb. 23, 1925	Feb. 27, 1925	Mar. 7, 1925	Mar. 6, 1926
Atlanta.....		9	2	4	3	4
Baltimore.....	7	39	4	11	2	7
Birmingham.....	6	10	8	16	10	30
Boston.....	4		8	2	5	1
Bridgeport.....	1		2	1		
Buffalo.....		1	2		1	
Cambridge, Mass.....					1	
Camden.....		3	2	3		4
Canton.....			1			
Chicago.....	7	3	10	10	14	7
Cincinnati.....	2	5	2	2	2	5
Cleveland.....	4	3	2	1	7	
Columbus.....	2	1	3	1	1	3
Dallas.....	2	8	1	12	7	4
Denver.....	4	10	2	8	2	9
Detroit.....	4		6	4	6	3
Duluth.....	1					
Elizabeth.....	1		1			
El Paso.....	3	13	4	7	7	6
Erie.....		7		2	1	3
Fall River.....	1	1		1		
Flint.....						
Fort Worth.....	1	3	3	7	1	2
Grand Rapids.....	1	1	2		2	
Hartford.....						
Houston.....	1	4		7	2	1
Indianapolis.....	1	1	6	2	3	
Kansas City, Mo.....	9	5	16		15	
Los Angeles.....	1	15	3	8	4	6
Louisville.....			1			
Lowell.....						
Lynn.....						
Memphis.....	1	8	6	8	5	9
Minneapolis.....		1				
Nashville.....	4	8	3		1	7
New Bedford.....						
New Haven.....			1	2	1	1
New Orleans.....	20	40	20	20	16	14
New York.....	28	30	22	30	15	61
Newark.....		1		1		
Norfolk.....						
Oakland.....		3	2	1	1	
Oklahoma City.....	1	1		6	2	1
Omaha.....						
Philadelphia.....	9	14	9	36	9	54
Pittsburgh.....	4	4	3	6	4	2
Portland, Oreg.....		3		2		1
Providence.....						1
Ravling.....						
Richmond.....	3	12	6	18	3	4
Rochester.....				1		8
St. Paul.....	1	1		4		1
Salt Lake City.....				2		
San Antonio.....	3	10	5	9	3	6
San Diego.....		2	1		1	1
San Francisco.....	2	11	1	2	2	3
Schenectady.....			1		1	
Somerville.....						
Springfield, Mass.....	1		4	2	1	2
Syracuse.....						1
Tacoma.....						
Toledo.....	1	2		1	3	3
Trenton.....		2	1	3	1	5
Washington.....	4	5	1	6	3	2
Waterbury.....	3	1				
Wilmington, Del.....						
Worcester.....						
Youngstown.....					3	

## PLAGUE ERADICATIVE MEASURES IN THE UNITED STATES

The following items were taken from the report of plague eradication measures from Los Angeles, Calif.

Week ended Feb. 27, 1926:

Number of rats trapped.....	1, 912
Number of rats found to be plague infected.....	0
Number of squirrels examined.....	700
Number of squirrels found to be plague infected.....	0
Number of mice trapped.....	2, 471
Number of mice found to be plague infected.....	0

Date of discovery of last plague-infected rodent, Nov. 6, 1925.

Date of last human case, Jan. 15, 1925.

## GENERAL CURRENT SUMMARY AND WEEKLY REPORTS FROM CITIES

*Diphtheria*.—For the week ended February 27, 1926, 36 States reported 1,333 cases of diphtheria. For the week ended February 28, 1925, the same States reported 1,591 cases of this disease. Ninety-seven cities, situated in all parts of the country and having an aggregate population of more than 29,400,000, reported 761 cases of diphtheria for the week ended February 27, 1926. Last year for the corresponding week they reported 907 cases. The estimated expectancy for these cities was 981 cases. The estimated expectancy is based on the experience of the last nine years, excluding epidemics.

*Measles*.—Thirty-three States reported 17,810 cases of measles for the week ended February 27, 1926, and 3,447 cases of this disease for the week ended February 28, 1925. Ninety-seven cities reported 11,504 cases of measles for the week this year, and 1,940 cases last year.

*Poliomyelitis*.—The health officers of 37 States reported 23 cases of poliomyelitis for the week ended February 27, 1926. The same States reported 18 cases for the week ended February 28, 1925.

*Scarlet fever*.—Scarlet fever was reported for the week as follows: Thirty-six States—this year, 4,118 cases; last year, 5,068 cases; 97 cities—this year, 1,624 cases; last year, 2,080 cases; estimated expectancy, 1,198 cases.

*Smallpox*.—For the week ended February 27, 1926, 36 States reported 921 cases of smallpox. Last year for the corresponding week they reported 975 cases. Ninety-seven cities reported smallpox for the week as follows: 1926, 233 cases; 1925, 359 cases; estimated expectancy, 122 cases. Twelve deaths from smallpox were reported by these cities for the week this year—at Los Angeles, Calif.

*Typhoid fever*.—One hundred and forty-seven cases of typhoid fever were reported for the week ended February 27, 1926, by 35 States. For the corresponding week of 1925, the same States reported 228 cases of this disease. Ninety-seven cities reported 28



cases of typhoid fever for the week this year and 72 cases for the corresponding week last year. The estimated expectancy for these cities was 42 cases.

*Influenza and pneumonia.*—Deaths from influenza and pneumonia were reported for the week by 91 cities, with a population of more than 29,000,000, as follows: 1926, 1,712 deaths; 1925, 1,191.

*City reports for week ended February 27, 1926*

The "estimated expectancy" given for diphtheria, poliomyelitis, scarlet fever, smallpox, and typhoid fever is the result of an attempt to ascertain from previous occurrence how many cases of the disease under consideration may be expected to occur during a certain week in the absence of epidemics. It is based on reports to the Public Health Service during the past nine years. It is in most instances the median number of cases reported in the corresponding week of the preceding years. When the reports include several epidemics or when for other reasons the median is unsatisfactory, the epidemic periods are excluded and the estimate expectancy is the mean number of cases reported for the week during nonepidemic years.

If reports have not been received for the full nine years, data are used for as many years as possible, but no year earlier than 1917 is included. In obtaining the estimated expectancy, the figures are smoothed when necessary to avoid abrupt deviations from the usual trend. For some of the diseases given in the table the available data were not sufficient to make it practicable to compute the estimated expectancy.

Division, State, and city	Population July 1, 1925, estimated	Chicken pox, cases reported	Diphtheria		Influenza		Measles, cases reported	Mumps, cases reported	Pneumonia, deaths reported
			Cases, estimated expectancy	Cases reported	Cases reported	Deaths reported			
NEW ENGLAND									
Maine:									
Portland.....	75,333	7	2	0	1	0	3	5	3
New Hampshire:									
Concord.....	22,546	0	0	0	0	0	8	0	3
Manchester.....	83,097	0	4	1	0	0	8	0	1
Vermont:									
Barre.....	10,008	0	0	0	0	0	0	0	1
Burlington.....	24,089	0	0	0	0	0	0	0	0
Massachusetts:									
Boston.....	770,620	61	63	18	3	2	131	16	28
Fall River.....	128,933	2	5	5	1	1	16	3	1
Springfield.....	142,065	25	4	1	5	2	317	1	0
Worcester.....	190,757	7	4	0	0	0	25	7	8
Rhode Island:									
Pawtucket.....	69,760	0	1	1	0	0	52	0	0
Providence.....	267,918	0	12	4	2	0	322	0	11
Connecticut:									
Bridgeport.....	(1)	0	0	0	1	1	19	0	7
Hartford.....	160,107	8	9	2	0	0	0	0	5
New Haven.....	178,927	14	3	3	0	2	33	3	3
MIDDLE ATLANTIC									
New York:									
Buffalo.....	538,016	29	15	6	1	0	22	1	18
New York.....	5,873,356	213	217	137	205	30	2,811	42	356
Rochester.....	316,786	13	8	12	8	1	69	1	14
Syracuse.....	182,003	31	6	2	0	0	61	49	6
New Jersey:									
Camden.....	128,642	16	4	5	2	3	22	0	9
Newark.....	452,513	85	18	8	20	1	455	12	19
Trenton.....	132,020	7	4	1	3	3	5	1	10
Pennsylvania:									
Philadelphia.....	1,979,364	162	82	58	17	35	610	19	166
Pittsburgh.....	631,563	35	22	9	-----	6	41	5	35
Reading.....	112,707	9	3	0	0	0	3	0	2

<sup>1</sup> No estimate made.

## City reports for week ended February 27, 1926—Continued

Division, State, and city	Population July 1, 1925, estimated	Chicken pox, cases re-ported	Diphtheria		Influenza		Meas-les, cases re-ported	Mumps, cases re-ported	Pneu-monia, deaths re-ported
			Cases, esti-mated expec-tancy	Cases re-ported	Cases re-ported	Deaths re-ported			
EAST NORTH CENTRAL									
Ohio:									
Cincinnati.....	409,333	14	9	10	1	2	2	0	10
Cleveland.....	936,485	45	29	42	1	1	1,125	3	36
Columbus.....	279,836	10	4	0	0	1	286	0	4
Toledo.....	287,380	24	6	10	0	1	49	0	3
Indiana:									
Fort Wayne.....	97,846	12	3	1	0	0	2	6	3
Indianapolis.....	358,819	22	9	10	0	2	1,492	6	21
South Bend.....	80,091	7	1	3	0	0	1	0	0
Terre Haute.....	71,071	4	1	1	0	0	1	0	5
Illinois:									
Chicago.....	2,995,230	165	107	62	35	10	114	14	94
Peoria.....	81,564	5	2	0	0	0	23	12	8
Springfield.....	63,923	11	1	3	1	0	8	3	2
Michigan:									
Detroit.....	1,245,824	43	56	46	4	4	1,332	13	68
Flint.....	130,316	17	6	2	0	0	14	7	5
Grand Rapids.....	153,698	20	3	5	0	0	14	0	2
Wisconsin:									
Madison.....	46,385	0	0	2	0	0	100	1	0
Milwaukee.....	509,192	111	15	19	0	0	31	40	16
Racine.....	67,707	5	2	0	0	0	0	6	3
Superior.....	39,671	0	0	0	0	0	0	0	0
WEST NORTH CENTRAL									
Minnesota:									
Duluth.....	110,502	4	1	0	0	0	6	0	2
Minneapolis.....	425,435	64	17	17	0	0	113	4	3
St. Paul.....	246,001	36	15	21	0	4	2	13	8
Iowa:									
Davenport.....	(1)	5	1	1	0	-----	0	0	-----
Des Moines.....	(1)	0	3	2	0	-----	2	0	-----
Sioux City.....	(1)	0	2	0	0	-----	0	0	-----
Waterloo.....	36,771	13	1	1	0	-----	9	0	-----
Missouri:									
Kansas City.....	367,481	-----	8	-----	-----	-----	-----	-----	-----
St. Joseph.....	78,342	2	2	3	0	0	1	0	1
St. Louis.....	821,543	42	43	67	2	1	51	3	-----
North Dakota:									
Fargo.....	26,403	2	0	0	0	0	0	10	0
Grand Forks.....	14,811	5	0	0	0	-----	3	0	-----
South Dakota:									
Aberdeen.....	15,036	0	0	0	0	-----	0	73	-----
Sioux Falls.....	30,127	9	0	0	0	0	0	0	0
Nebraska:									
Lincoln.....	60,941	4	1	1	0	0	0	0	4
Omaha.....	211,768	27	5	2	0	0	12	-----	10
Kansas:									
Topeka.....	55,411	9	1	2	0	2	21	0	5
Wichita.....	88,367	5	3	1	0	2	60	2	4
SOUTH ATLANTIC									
Delaware:									
Wilmington.....	122,049	8	1	4	0	0	174	0	18
Maryland:									
Baltimore.....	796,296	78	27	9	171	11	1,037	182	63
Cumberland.....	33,741	0	0	0	2	0	2	0	0
Frederick.....	12,035	0	0	1	2	1	9	1	1
District of Columbia:									
Washington.....	497,906	44	13	9	58	6	122	0	65
Virginia:									
Lynchburg.....	30,395	16	1	0	0	0	19	4	7
Norfolk.....	(1)	29	1	0	0	0	2	6	8
Richmond.....	180,403	8	3	6	0	18	14	2	17
Roanoke.....	58,208	0	1	2	0	0	63	3	2
West Virginia:									
Charleston.....	49,019	10	1	0	6	0	5	0	2
Huntington.....	63,485	0	1	0	0	2	8	0	2
Wheeling.....	56,208	25	0	3	0	0	22	0	1
North Carolina:									
Raleigh.....	30,371	0	0	0	0	1	0	0	3
Wilmington.....	37,061	16	0	1	0	0	0	0	2
Winston-Salem.....	69,031	12	0	1	-----	3	276	1	4

1 No estimate made.

## City reports for week ended February 27, 1926—Continued

Division, State, and city	Population July 1, 1925, estimated	Chick- en pox, cases re- ported	Diphtheria		Influenza		Meas- les, cases re- ported	Mumps, cases re- ported	Pneu- monia, deaths re- ported
			Cases, es- timated ex- pectancy	Cases re- ported	Cases re- ported	Deaths re- ported			
SOUTH ATLANTIC—CON.									
South Carolina:									
Charleston.....	73,125	0	0	0	8	5	0	0	2
Columbia.....	41,225	10	1	1	0	0	0	3	0
Greenville.....	27,311	1	0	0	0	0	1	0	2
Georgia:									
Atlanta.....	(1)	4	3	1	164	4	5	3	22
Brunswick.....	16,809	1	0	0	0	1	0	0	0
Savannah.....	93,134	5	0	1	13	1	4	1	6
Florida:									
St. Petersburg.....	26,847		0		0	0			0
Tampa.....	94,743	4	2	0	0	0	0	0	14
EAST SOUTH CENTRAL									
Kentucky:									
Covington.....	58,369		1						
Louisville.....	305,935	12	5	1	7	0	52	0	7
Tennessee:									
Memphis.....	174,533	28	4	4	0	8	26	5	19
Nashville.....	130,220	12	1	1	0	0	144	0	6
Alabama:									
Birmingham.....	205,670	29	2	3	206	16	16	2	17
Mobile.....	65,955	0	1	0	8	2	0	0	7
Montgomery.....	46,481	5	1	1	14	0	0	10	0
WEST SOUTH CENTRAL									
Arkansas:									
Fort Smith.....	31,643	1	0	1	0		0	0	
Little Rock.....	74,216	0	1	0	3	0	0	0	4
Louisiana:									
New Orleans.....	414,493	1	12	6	33	20	0	0	19
Shreveport.....	57,857	9	0	0	0	0	1	2	2
Oklahoma:									
Oklahoma City.....	(1)	0	1	1	0	6	0	0	2
Texas:									
Dallas.....	194,450	30	6	5	25	12	0	0	13
Galveston.....	48,375	0	0	1	0	0	0	0	3
Houston.....	164,954	1	2	13	5	7	0	0	15
San Antonio.....	198,069	1	2	1		9	1	0	24
MOUNTAIN									
Montana:									
Billings.....	17,971	1	0	0	0	0	0	4	0
Great Falls.....	29,883	11	0	0	0	0	0	10	1
Helena.....	12,037	0	0	0	0	0	0	0	1
Missoula.....	12,608	0	1	0	170	1	0	2	0
Idaho:									
Boise.....	23,042	3	0	1	0	0	0	0	0
Colorado:									
Denver.....	280,911		9			8			31
Pueblo.....	43,787	7	2	2	0	0	0	1	4
New Mexico:									
Albuquerque.....	21,000	0	1	0	3	2	3	3	0
Arizona:									
Phoenix.....	38,669	3	1	0	0	1	0	0	1
Utah:									
Salt Lake City.....	130,948	25	2	6	0	2	0	20	8
Nevada:									
Reno.....	12,665	0	0	0	0	0	0	0	0
PACIFIC									
Washington:									
Seattle.....	(1)	40	6	7	0		6	61	
Spokane.....	108,897	12	3	3	0		0	0	
Tacoma.....	104,455	0	1	6	0	0	3	1	2
Oregon:									
Portland.....	282,383	16	6	7	22	2	8	6	9
California:									
Los Angeles.....	(1)	114	32	47	47	8	10	10	26
Sacramento.....	72,260	3	1	3	0	0	0	3	2
San Francisco.....	557,530	55	24	14	6	2	41	15	10

1 No estimate made.

## City reports for week ended February 27, 1926 Continued

Division, State, and city	Scarlet fever		Smallpox			Tuber- cul- sis, deaths re- ported	Typhoid fever			Whoop- ing cough, cases re- ported	Deaths, all causes
	Cases, esti- mated expect- ancy	Cases re- ported	Cases, esti- mated expect- ancy	Cases re- ported	Deaths re- ported		Cases, esti- mated expect- ancy	Cases re- ported	Deaths re- ported		
NEW ENGLAND											
Maine:											
Portland.....	2	4	0	0	0	1	0	1	0	4	34
New Hampshire:											
Concord.....	0	0	0	0	0	1	0	0	0	0	19
Manchester.....	2	7	0	0	0	0	0	0	0	0	24
Vermont:											
Barre.....	1	0	0	0	0	0	0	0	0	0	4
Burlington.....	1	9	0	0	0	1	0	0	0	0	8
Massachusetts:											
Boston.....	60	82	0	0	0	13	2	1	0	178	222
Fall River.....	3	2	0	0	0	6	0	0	0	8	32
Springfield.....	8	10	0	0	0	2	1	0	0	18	33
Worcester.....	10	0	0	0	0	1	0	0	0	6	46
Rhode Island:											
Pawtucket.....	1	2	0	0	0	0	0	0	0	5	12
Providence.....	9	8	0	0	0	5	0	0	0	1	83
Connecticut:											
Bridgeport.....	9	20	0	0	0	1	0	0	0	6	37
Hartford.....	6	5	0	0	0	3	1	0	0	10	48
New Haven.....	7	17	0	0	0	3	1	0	0	14	40
MIDDLE ATLANTIC											
New York:											
Buffalo.....	19	17	1	0	0	14	1	0	1	18	150
New York.....	251	135	1	0	0	116	7	4	2	80	1,809
Rochester.....	16	15	0	0	0	2	1	1	0	10	87
Syracuse.....	16	4	0	0	0	1	0	0	0	78	44
New Jersey:											
Camden.....	4	7	0	0	0	2	0	0	0	5	57
Newark.....	24	33	0	0	0	8	0	0	0	5	139
Trenton.....	4	8	0	0	0	4	1	0	0	0	50
Pennsylvania:											
Philadelphia.....	73	91	1	0	0	52	3	0	0	33	789
Pittsburgh.....	27	55	0	0	0	13	0	0	0	32	178
Reading.....	2	10	0	0	0	0	0	0	0	4	24
EAST NORTH CENTRAL											
Ohio:											
Cincinnati.....	13	25	2	0	0	13	0	0	1	45	120
Cleveland.....	33	71	1	0	0	19	1	0	0	114	230
Columbus.....	9	24	1	3	0	2	0	0	0	1	71
Toledo.....	22	11	4	0	0	5	0	0	0	14	80
Indiana:											
Fort Wayne.....	4	5	0	0	0	2	0	0	0	3	38
Indianapolis.....	10	15	7	22	0	7	1	0	0	43	123
South Bend.....	3	5	1	1	0	0	0	0	0	11	9
Terre Haute.....	2	2	1	0	0	0	0	0	0	1	19
Illinois:											
Chicago.....	133	139	3	0	0	50	3	1	0	86	785
Peoria.....	4	7	0	1	0	0	0	0	0	4	37
Springfield.....	1	2	0	0	0	0	0	0	0	22	16
Michigan:											
Detroit.....	93	124	3	0	0	29	2	0	0	62	370
Flint.....	7	17	1	0	0	0	0	0	0	48	20
Grand Rapids.....	8	20	1	1	0	0	0	0	0	80	30
Wisconsin:											
Madison.....	4	11	0	0	0	0	0	0	0	4	6
Milwaukee.....	34	24	3	0	0	5	0	0	0	68	106
Racine.....	4	3	0	0	0	2	0	0	0	34	7
Superior.....	2	11	4	0	0	1	0	0	0	0	7

¹ Pulmonary tuberculosis only.

## City reports for week ended February 27, 1926—Continued

Division, State, and city	Scarlet fever		Smallpox			Tuber- culosis, deaths re- ported	Typhoid fever			Whoop- ing cough, cases re- ported	Deaths, all causes
	Cases, esti- mated expect- ancy	Cases re- ported	Cases, esti- mated expect- ancy	Cases re- ported	Deaths re- ported		Cases, esti- mated expect- ancy	Cases re- ported	Deaths re- ported		
WEST NORTH CENTRAL											
Minnesota:											
Duluth.....	3	21	1	0	0	1	0	1	0	6	30
Minneapolis.....	42	62	13	0	0	2	1	0	0	8	75
St. Paul.....	28	52	6	0	0	0	0	0	0	25	63
Iowa:											
Davenport.....	2	1	2	0	0	0	0	0	0	0	0
Des Moines.....	8	1	2	0	0	0	0	0	0	0	0
Sioux City.....	2	2	1	3	0	0	0	0	0	0	0
Waterloo.....	3	0	0	2	0	0	0	0	0	1	0
Missouri:											
Kansas City.....	12	2	2	0	0	1	1	0	0	0	0
St. Joseph.....	3	8	0	0	0	4	0	0	0	1	22
St. Louis.....	32	156	4	4	0	11	1	0	0	9	240
North Dakota:											
Fargo.....	2	0	0	0	0	0	0	0	0	0	2
Grand Forks.....	0	0	0	0	0	0	0	0	0	0	0
South Dakota:											
Aberdeen.....	3	0	0	0	0	0	0	0	0	0	0
Sioux Falls.....	4	1	0	0	0	2	0	0	0	0	8
Nebraska:											
Lincoln.....	3	2	0	0	0	0	0	0	0	15	17
Omaha.....	5	27	6	30	0	8	0	0	0	5	68
Kansas:											
Topeka.....	2	1	0	0	0	0	0	0	0	3	28
Wichita.....	3	1	1	0	0	2	0	0	0	7	22
SOUTH ATLANTIC											
Delaware:											
Wilmington.....	3	6	0	0	0	1	0	0	0	10	71
Maryland:											
Baltimore.....	42	25	0	0	0	25	1	0	1	34	301
Cumberland.....	1	1	0	0	0	1	0	0	0	0	11
Frederick.....	1	1	0	0	0	0	0	0	0	0	5
Dist. of Columbia:											
Washington.....	26	32	1	0	0	11	0	1	1	30	225
Virginia:											
Lynchburg.....	0	0	0	0	0	2	0	2	0	5	17
Norfolk.....	1	1	0	0	0	0	0	0	0	21	0
Richmond.....	3	6	1	1	0	5	1	0	0	2	111
Roanoke.....	0	2	0	1	0	2	1	0	0	0	13
West Virginia:											
Charleston.....	1	1	1	0	0	1	1	1	0	23	20
Huntington.....	1	0	0	1	0	2	0	1	0	0	19
Wheeling.....	1	18	0	1	0	3	0	0	0	0	19
North Carolina:											
Raleigh.....	0	0	0	0	0	1	0	0	0	0	17
Wilmington.....	0	3	0	0	0	1	0	0	0	1	12
Winston-Salem.....	0	2	2	4	0	1	0	0	0	9	23
South Carolina:											
Charleston.....	0	0	0	0	0	1	0	0	0	0	21
Columbia.....	0	0	0	1	0	0	0	0	0	0	0
Greenville.....	0	0	0	0	0	2	0	0	0	3	7
Georgia:											
Atlanta.....	4	3	3	0	0	5	0	0	0	0	78
Brunswick.....	0	0	0	0	0	0	0	0	0	0	5
Savannah.....	1	3	0	0	0	2	0	1	0	2	34
Florida:											
St. Petersburg.....	0	0	0	0	0	2	0	0	0	0	23
Tampa.....	1	3	0	27	0	2	1	1	1	0	50

## City reports for week ended February 27, 1926--Continued

Division, State, and city	Scarlet fever		Smallpox			Tuber- cul- sis, deaths re- ported	Typhoid fever			Whoop- ing cough, cases re- ported	Deaths, all causes
	Cases, esti- mated expect- ancy	Cases re- ported	Cases, esti- mated expect- ancy	Cases re- ported	Deaths re- ported		Cases, esti- mated expect- ancy	Cases re- ported	Deaths re- ported		
EAST SOUTH CEN- TRAL											
Kentucky:											
Covington.....	2		0				0				
Louisville.....	5	4	1	0	0	6	1	0	0	7	84
Tennessee:											
Memphis.....	3	22	2	4	0	4	1	1	0	0	85
Nashville.....	4	1	1	0	0	5	0	1	1	3	48
Alabama:											
Birmingham...	2	5	7	6	0	4	1	0	0	8	96
Mobile.....	0	0	1	0	0	2	1	0	0	0	36
Montgomery....	0	1	1	0	0	0	0	0	0	0	19
WEST SOUTH CENTRAL											
Arkansas:											
Fort Smith.....	0	1	0	0			0	0		0	
Little Rock.....	1	4	0	0			1	0		0	
Louisiana:											
New Orleans....	5	11	2	7	0	14	2	4	0	2	197
Shreveport.....	0	2	2	0	0	1	0	0	0	5	24
Oklahoma:											
Oklahoma City.....	3	3	4	0	0	0	0	1	0	0	28
Texas:											
Dallas.....	1	6	4	3	0	4	0	2	0	11	72
Galveston.....	0	1	0	15	0	0	0	1	1	0	11
Houston.....	1	0	2	6	0	5	0	0	0	1	72
San Antonio....	1	1	0	0	0	10	0	0	0	0	85
MOUNTAIN											
Montana:											
Billings.....	1	0	0	0	0	0	0	1	0	1	5
Great Falls....	2	4	3	0	0	0	0	0	0	2	12
Helena.....	0	0	0	0	0	0	0	0	0	0	3
Missoula.....	0	2	0	0	0	0	0	0	0	0	5
Idaho:											
Boise.....	1	0	1	4	0	0	0	0	0	0	5
Colorado:											
Denver.....	11		2		0	8	0		0		108
Pueblo.....	1	0	1	0	0	1	1	0		0	10
New Mexico:											
Albuquerque....	1	5	0	0	0	3	0	0	0	1	7
Arizona:											
Phoenix.....	1	1	0	0	0	5	0	0	0	0	21
Utah:											
Salt Lake City..	4	0	2	0	0	0	0	0	0	24	39
Nevada:											
Reno.....	0	0	0	0	0	0	0	0	0	0	2
PACIFIC											
Washington:											
Seattle.....	10	38	4	16			0	1		4	
Spokane.....	3	25	6	0			0	0		0	
Tacoma.....	2	2	3	10	0	1	1	1	0	2	24
Oregon:											
Portland.....	6	14	13	3	0	0	1	2	0	2	66
California:											
Los Angeles....	19	27	3	62	12	22	2	1	1	3	290
Sacramento....	1	1	1	2	0	2	0	0	0	0	27
San Francisco...	15	23	6	1	0	16	0	0	0	3	164

## City reports for week ended February 27, 1926—Continued

Division, State, and city	Cerebrospinal meningitis		Lethargic encephalitis		Pellagra		Poliomyelitis (infantile paralysis)		
	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases, estimated expectancy	Cases	Deaths
<b>NEW ENGLAND</b>									
Massachusetts:									
Boston.....	0	0	1	2	0	0	0	0	0
Worcester.....	0	0	0	1	0	0	0	0	0
<b>MIDDLE ATLANTIC</b>									
New York:									
Buffalo.....	2	1	0	0	0	0	0	0	0
New York.....	4	3	6	5	0	0	1	1	1
New Jersey:									
Camden.....	0	0	1	1	0	0	0	0	0
Newark.....	0	0	1	0	0	0	0	0	0
Pennsylvania:									
Philadelphia.....	1	2	0	2	0	0	1	0	0
Pittsburgh.....	0	0	0	1	0	0	0	0	0
<b>EAST NORTH CENTRAL</b>									
Ohio:									
Cleveland.....	0	0	0	1	0	0	0	0	0
Illinois:									
Chicago.....	1	0	1	1	0	0	0	0	0
Michigan:									
Detroit.....	0	0	0	0	0	0	0	1	0
<b>WEST NORTH CENTRAL</b>									
Minnesota:									
Duluth.....	1	0	0	0	0	0	0	0	0
Minneapolis.....	1	0	0	0	0	0	0	0	0
Missouri:									
St. Joseph.....	0	0	0	0	0	0	0	1	0
St. Louis.....	1	1	0	0	0	0	0	0	0
<b>SOUTH ATLANTIC</b>									
Maryland:									
Baltimore.....	0	1	0	1	0	0	1	0	0
<b>EAST SOUTH CENTRAL</b>									
Tennessee:									
Memphis.....	0	0	0	0	0	1	0	0	0
Alabama:									
Birmingham.....	0	0	0	0	2	0	0	0	0
<b>WEST SOUTH CENTRAL</b>									
Louisiana:									
New Orleans.....	0	0	1	1	0	0	0	0	0
Texas:									
Dallas.....	0	0	0	0	1	1	0	0	0
Houston.....	0	0	0	0	1	1	0	0	0
<b>MOUNTAIN</b>									
Arizona:									
Phoenix.....	0	0	0	0	0	1	0	0	0
<b>PACIFIC</b>									
Washington:									
Seattle.....	2	0	0	0	0	0	0	0	0
Oregon:									
Portland.....	2	1	0	0	0	0	0	0	0
California:									
Los Angeles <sup>1</sup> .....	3	2	0	0	0	0	0	0	0
Sacramento.....	1	0	0	1	0	0	0	0	0

<sup>1</sup> Typhus fever, 1 case at Los Angeles, Calif.

The following table gives the rates per 100,000 population for 103 cities for the five-week period ended February 27, 1926, compared with those for a like period ended February 28, 1925. The popula-

tion figures used in computing the rates are approximate estimates as of July 1, 1925, and 1926, respectively, authoritative figures for many of the cities not being available. The 103 cities reporting cases had an estimated aggregate population of nearly 30,000,000 in 1925 and nearly 30,500,000 in 1926. The 96 cities reporting deaths had more than 29,250,000 estimated population in 1925 and more than 29,750,000 in 1926. The number of cities included in each group and the estimated aggregate populations are shown in a separate table below.

*Summary of weekly reports from cities, January 24 to February 27, 1926—Annual rates per 100,000 population—Compared with rates for the corresponding period of 1925<sup>1</sup>*

## DIPHTHERIA CASE RATES

	Week ended—									
	Jan. 31, 1925	Jan. 30, 1926	Feb. 7, 1925	Feb. 6, 1926	Feb. 14, 1925	Feb. 13, 1926	Feb. 21, 1925	Feb. 20, 1926	Feb. 28, 1925	Feb. 27, 1926
103 cities.....	160	142	169	134	163	136	153	137	163	134
New England.....	192	118	185	97	237	123	232	116	184	102
Middle Atlantic.....	155	130	170	129	164	140	162	132	177	118
East North Central.....	126	138	138	119	124	132	116	134	111	140
West North Central.....	243	245	247	220	251	168	203	202	289	203
South Atlantic.....	121	116	145	133	173	135	148	105	108	73
East South Central.....	89	42	58	42	63	47	74	57	47	55
West South Central.....	141	142	167	138	154	116	119	90	154	116
Mountain.....	129	264	185	127	92	173	157	218	148	163
Pacific.....	279	167	267	189	171	140	187	205	246	216

## MEASLES CASE RATES

103 cities.....	204	1,383	242	1,481	285	1,717	367	1,985	342	
New England.....	467	2,751	556	2,408	637	2,347	695	2,708	560	2,188
Middle Atlantic.....	205	1,185	204	1,347	286	1,511	371	1,913	341	2,040
East North Central.....	340	2,088	415	2,152	479	2,633	637	2,899	589	3,031
West North Central.....	20	277	16	408	28	542	26	677	70	762
South Atlantic.....	35	2,280	46	2,679	92	3,112	104	3,276	77	2,856
East South Central.....	84	394	47	711	68	732	47	960	42	1,311
West South Central.....	13	26	35	34	48	13	13	0	48	9
Mountain.....	277	100	758	91	148	109	601	137	888	10
Pacific.....	17	73	58	105	28	167	61	202	58	162

## SCARLET FEVER CASE RATES

103 cities.....	346	287	397	298	385	208	376	300	390	287
New England.....	515	378	592	402	544	362	585	362	543	354
Middle Atlantic.....	299	235	372	200	406	197	374	208	411	187
East North Central.....	366	300	398	338	371	358	403	371	402	434
West North Central.....	756	661	844	746	695	770	719	772	711	764
South Atlantic.....	175	154	241	163	261	171	157	150	192	203
East South Central.....	200	100	89	119	194	114	205	244	168	182
West South Central.....	194	69	154	138	114	108	119	108	137	112
Mountain.....	250	255	324	155	370	218	240	237	305	109
Pacific.....	215	334	246	326	168	310	177	332	213	313

<sup>1</sup> The figures given in this table are rates per 100,000 population, annual basis, and not the number of cases reported. Populations used are estimated as of July 1, 1925, and 1926, respectively.

<sup>2</sup> Racine, Wis., not included.

<sup>3</sup> Wilmington, Del., not included.

<sup>4</sup> Madison, Wis., not included.

<sup>5</sup> Hartford, Conn., not included.

<sup>6</sup> Madison, Wis., Kansas City, Mo., Winston-Salem, N. C., Covington, Ky., and Denver, Colo., not included.

<sup>7</sup> Kansas City, Mo., not included.

<sup>8</sup> Winston-Salem, N. C., not included.

<sup>9</sup> Covington, Ky., not included.

<sup>10</sup> Denver, Colo., not included.



Summary of weekly reports from cities, January 24 to February 27, 1926—Annual rates per 100,000 population—Compared with rates for the corresponding period of 1925—Continued

## SMALLPOX CASE RATES

	Week ended—									
	Jan. 31, 1925	Jan. 30, 1926	Feb. 7, 1925	Feb. 6, 1926	Feb. 14, 1925	Feb. 13, 1926	Feb. 21, 1925	Feb. 20, 1926	Feb. 28, 1925	Feb. 27, 1926
103 cities.....	2 65	40	3 73	47	3 76	4 53	64	4 41	5 64	6 41
New England.....	0	0	0	0	0	0	0	0	0	0
Middle Atlantic.....	9	1	2	0	4	1	2	0	3	0
East North Central.....	3 33	43	36	16	33	4 23	52	4 34	26	4 19
West North Central.....	189	53	141	53	187	32	123	63	117	7 90
South Atlantic.....	42	58	3 68	101	3 92	81	63	51	40	6 60
East South Central.....	599	21	756	42	620	52	488	104	536	9 55
West South Central.....	57	125	119	155	132	112	79	142	110	13 13
Mountain.....	46	18	28	73	157	73	83	36	55	10 73
Pacific.....	168	205	254	324	210	461	204	194	298	245

## TYPHOID FEVER CASE RATES

	1925	1926	1925	1926	1925	1926	1925	1926	1925	1926
103 cities.....	17	8	13	7	12	6	10	7	13	5
New England.....	7	9	29	14	19	5	0	7	13	5
Middle Atlantic.....	19	9	13	3	6	6	10	4	8	2
East North Central.....	10	4	8	3	6	4	6	5	6	4
West North Central.....	12	2	0	6	10	4	4	6	16	7
South Atlantic.....	35	9	16	13	20	15	8	4	19	12
East South Central.....	21	10	11	21	37	10	32	5	32	11
West South Central.....	57	17	22	4	44	0	40	22	40	30
Mountain.....	18	18	28	36	18	0	37	18	74	18
Pacific.....	3	11	17	16	11	13	22	16	8	8

## INFLUENZA DEATH RATES

	1925	1926	1925	1926	1925	1926	1925	1926	1925	1926
96 cities.....	22	29	29	35	27	34	29	50	34	46
New England.....	26	17	46	12	26	19	17	2	39	19
Middle Atlantic.....	16	18	24	20	22	15	21	27	20	39
East North Central.....	11	12	12	12	16	11	17	11	23	14
West North Central.....	15	13	19	19	11	4	21	19	36	22
South Atlantic.....	36	36	44	68	52	64	52	137	46	93
East South Central.....	68	73	63	104	58	62	68	161	116	143
West South Central.....	77	151	92	180	116	302	145	298	140	227
Mountain.....	37	73	55	109	55	127	55	109	18	100
Pacific.....	18	78	38	67	4	35	11	96	25	35

## PNEUMONIA DEATH RATES

	1925	1926	1925	1926	1925	1926	1925	1926	1925	1926
96 cities.....	198	193	214	206	212	213	207	200	190	260
New England.....	232	144	204	201	230	156	232	175	235	165
Middle Atlantic.....	229	217	252	213	230	212	215	289	184	316
East North Central.....	136	136	162	145	158	161	173	182	160	180
West North Central.....	114	108	106	127	133	77	127	125	150	81
South Atlantic.....	238	284	295	344	247	406	232	486	275	456
East South Central.....	278	208	299	249	289	223	294	296	268	309
West South Central.....	218	444	334	387	440	553	387	553	203	378
Mountain.....	305	164	185	228	268	328	293	173	259	410
Pacific.....	193	174	175	185	171	138	189	174	145	142

<sup>1</sup> Racine, Wis., not included.

<sup>2</sup> Wilmington, Del., not included.

<sup>3</sup> Madison, Wis., not included.

<sup>4</sup> Hartford, Conn., not included.

<sup>5</sup> Madison, Wis., Kansas City, Mo., Winston-Salem, N. C., Covington, Ky., and Denver, Colo., not included.

<sup>6</sup> Kansas City, Mo., not included.

<sup>7</sup> Winston-Salem, N. C., not included.

<sup>8</sup> Covington, Ky., not included.

<sup>9</sup> Denver, Colo., not included.

*Number of cities included in summary of weekly reports, and aggregate population of cities in each group, approximated as of July 1, 1925 and 1926, respectively*

Group of cities	Number of cities reporting cases	Number of cities reporting deaths	Aggregate population of cities cases		Aggregate population of cities deaths	
			1925	1926	1925	1926
Total .....	103	96	29,944,996	30,473,129	29,251,658	29,764,201
New England .....	12	12	2,176,124	2,206,124	2,176,124	2,206,124
Middle Atlantic .....	10	10	10,346,970	10,476,970	10,346,970	10,476,970
East North Central .....	16	16	7,481,656	7,655,436	7,481,656	7,655,436
West North Central .....	14	11	2,594,962	2,634,662	2,461,880	2,499,636
South Atlantic .....	21	21	2,716,070	2,776,070	2,716,070	2,776,070
East South Central .....	7	7	953,103	1,004,953	953,103	1,004,953
West South Central .....	8	6	1,184,657	1,212,657	1,078,198	1,103,695
Mountain .....	9	9	563,912	572,773	563,912	572,773
Pacific .....	6	4	1,888,142	1,934,084	1,434,245	1,460,144

## FOREIGN AND INSULAR

### SMALLPOX ON VESSEL

The Mexican steamer *Montezuma* discharged two members of the crew at Ensenada, Mexico, on February 21, 1926, suffering from smallpox. All other members of the crew were vaccinated, and the vessel proceeded to San Francisco, where the crew were under observation. No other cases developed.

### THE FAR EAST

*Report for week ended February 13, 1926.*—The following report for the week ended February 13, 1926, was transmitted by the far eastern bureau of the health section of the League of Nations' secretariat, located at Singapore, to the headquarters at Geneva:

Port	Plague		Cholera		Small-pox		Port	Plague		Cholera		Small-pox	
	Cases	Deaths	Cases	Deaths	Cases	Deaths		Cases	Deaths	Cases	Deaths	Cases	Deaths
Calcutta.....	0	0	27	0	45	0	Niigata.....	0	0	0	0	0	0
Bombay.....	2	0	0	16	12	0	Tsuruga.....	0	0	0	0	0	0
Madras.....	0	0	3	10	0	0	Hakodate.....	0	0	0	0	0	0
Rangoon.....	2	1	13	5	0	0	Keelung.....	0	0	0	0	0	0
Karachi.....	0	0	0	9	3	0	Fusan.....	0	0	0	0	0	0
Negapatam.....	0	0	11	5	5	0	Dairen.....	0	0	0	0	3	2
Colombo.....	1	1	0	3	0	0	Adelaide.....	0	0	0	0	0	0
Basra.....	0	0	0	7	7	0	Brisbane.....	0	0	0	0	0	0
Singapore.....	0	0	0	1	0	0	Fremantle.....	0	0	0	0	0	0
Port Swettenham.....	0	0	0	0	0	0	Melbourne.....	0	0	0	0	0	0
Penang.....	0	0	0	0	0	0	Sydney.....	0	0	0	0	0	0
Batavia.....	0	0	0	0	0	0	Rockhampton.....	0	0	0	0	0	0
Surabaya.....	0	0	0	0	0	0	Townsville.....	0	0	0	0	0	0
Samarang.....	0	0	0	0	0	0	Port Darwin.....	0	0	0	0	0	0
Belawan Deli.....	0	0	0	0	0	0	Broome.....	0	0	0	0	0	0
Padang (Sumatra).....	0	0	0	0	0	0	Port Moresby.....	0	0	0	0	0	0
Sabang (Rhio).....	0	0	0	0	0	0	Auckland.....	0	0	0	0	0	0
Makassar.....	0	0	0	0	0	0	Wellington.....	0	0	0	0	0	0
Pontianak (Borneo).....	0	0	0	0	0	0	Christchurch.....	0	0	0	0	0	0
Sandakan (N. Borneo).....	0	0	0	0	0	0	Invercargill.....	0	0	0	0	0	0
Kuching (Sarawak).....	0	0	0	33	2	0	Honolulu.....	0	0	0	0	0	0
Timor Dilly.....	0	0	0	0	0	0	Suez.....	0	0	0	0	0	0
Manila.....	0	0	2	0	0	0	Alexandria.....	0	0	0	0	0	0
Zamboanga.....	0	0	0	0	0	0	Port Said.....	0	0	0	0	0	0
Bangkok.....	5	4	19	13	14	5	Mombasa (Kenya).....	0	0	0	0	0	0
Saigon and Cholon.....	0	0	0	1	0	0	Massowah.....	0	0	0	0	0	0
Haiphong.....	0	0	0	0	0	0	Djibuti.....	0	0	0	0	0	0
Tourane.....	0	0	0	1	0	0	Berbera.....	0	0	0	0	0	0
Hongkong.....	0	0	0	0	0	0	Mozambique.....	0	0	0	0	0	0
Shanghai.....	0	0	0	0	11	0	Lourenceo Marques.....	0	0	0	0	0	0
Nagasaki.....	0	0	0	0	0	0	Durban.....	0	0	0	0	0	0
Yokohama.....	0	0	0	0	0	0	East London.....	0	0	0	0	0	0
Simonseski.....	0	0	0	0	0	0	Port Elizabeth.....	0	0	0	0	0	0
Moji.....	0	0	0	0	0	0	Cape Town.....	0	0	0	0	0	0
Kobe.....	0	0	0	0	0	0	Port Louis (Mauritius).....	0	0	0	0	0	0
Osaka.....	0	0	0	0	0	0	Seychelles.....	0	0	0	0	0	0

## ARGENTINA

*Plague—Buenos Aires.*—A case of plague was reported at Buenos Aires, Argentina, during the week ended January 30, 1926.

## BAHAMAS

*Smallpox—Stated to have been imported.*—Under date of February 23, 1926, the occurrence of six cases of smallpox, stated to have been imported from Florida, was reported in the district of Nassau, Bahama Islands.

*Other diseases present.*—Some cases of dysentery, influenza, leprosy, and tertian malaria were reported, February 23, as present in the Bahama Islands.

## CANADA

*Communicable diseases—Week ended February 27, 1926.*—The Canadian Ministry of Health reports certain communicable diseases in seven Provinces of Canada for the week ended February 27, 1926, as follows:

Disease	Nova Scotia	New Brunswick	Quebec	Ontario	Manitoba	Saskatchewan	Alberta	Total
Influenza	40							40
Lethargic encephalitis				1				1
Smallpox				39	4	10	3	56
Typhoid fever			6	10	2		3	21

## COLOMBIA

*Rodent plague from vessel at Buenaventura.*—Report by mail relative to the plague rat found at Buenaventura, Colombia (Public Health Reports, February 26, 1926, p. 408), states that the rat was killed January 29, 1926, as it was jumping ashore from the British steamship *Cid*.

## CUBA

*Typhoid fever—Santiago de Cuba.*—During the week ended February 27, 1926, 13 cases of typhoid fever with two deaths were reported at Santiago de Cuba.

## GREECE

*Plague—Herakleion—Island of Crete—February 4, 1926.*—A case of plague was reported at Herakleion, Island of Crete, Greece, February 4, 1926.

## GUADELOUPE (WEST INDIES)

*Typhoid fever—Pointe à Pitre—January, 1926.*—During the month of January, 1926, fatalities from typhoid fever were unofficially reported at Pointe à Pitre, Guadeloupe, West Indies.

*Prevalence of other diseases.*—During the same period 26 cases of amebic dysentery, 50 cases of malaria, and one case of paratyphoid fever were reported in hospital in the colony of Guadeloupe.

### MALTA

*Communicable diseases—January 1-31, 1926.*—During the period January 1 to 31, 1926, communicable diseases were reported in the island of Malta as follows:

Disease	Cases	Disease	Cases
Broncho pneumonia.....	7	Measles.....	16
Chicken pox.....	28	Pneumonia.....	6
Diphtheria.....	2	Smallpox.....	15
Influenza.....	10	Tuberculosis.....	14
Malta (undulant) fever.....	27	Typhoid fever.....	16

Population, civil, estimated, 223,088.

### SPAIN

*Influenza mortality—Seville.*—During the two weeks ended February 10, 1926, five deaths from influenza were reported at Seville, Spain.

### CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER

The reports contained in the following tables must not be considered as complete or final as regards either the lists of countries included or the figures for the particular countries for which reports are given.

#### Reports Received During Week Ended March 19, 1926<sup>1</sup>

##### CHOLERA

Place	Date	Cases	Deaths	Remarks
India.....				Dec. 27, 1925-Jan. 2, 1926: Cases, 2,619; deaths, 1,453.
Madras.....	Jan. 24-Feb. 6.....	29	11	
Indo-China (French):				
Saigon.....	Jan. 11-17.....	1	1	Including 100 square kilometers of surrounding country.
Philippine Islands:				
Manila.....	Jan. 18-31.....	6	4	
Siam:				
Bangkok.....	Jan. 17-23.....	30	23	

##### PLAGUE

Place	Date	Cases	Deaths	Remarks
Argentina:				
Buenos Aires.....	Jan. 24-30.....	1		
Ceylon:				
Colombo.....				Jan. 24-30, 1926: 1 plague rodent.
Greece:				
Herakleion.....	Feb. 4.....	1		On island of Crete.
India:				Dec. 27, 1925-Jan. 2, 1926: Cases, 1,876; deaths, 1,333
Madras Presidency.....	Jan. 3-9.....	135	83	
Rangoon.....	Jan. 17-23.....	4	4	
Iraq:				
Bagdad.....	Jan. 24-30.....	4	4	
Java:				
Batavia.....	Jan. 16-22.....	58	54	Batavia Province.
Ocheribon.....	Nov. 30-Dec. 19.....		96	
Pekalongan.....	do.....		131	
Surabaya.....	Jan. 3-9.....	6	6	East Java and Madura.
Tegal.....	Nov. 30-Dec. 19.....		15	

<sup>1</sup> From medical officers of the Public Health Service, American consuls, and other sources.

# **CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued**

## **Reports Received During Week Ended March 19, 1926—Continued**

### **PLAGUE—Continued**

Place	Date	Cases	Deaths	Remarks
Netherlands East Indies: Celebes— Makassar.....	Jan. 6-12.....	2	2	
Siam: Bangkok.....	Jan. 17-23.....	2	1	
On vessel: Steamship Cid.....				Jan. 29, 1926: At Buenaventura, Colombia. Rat was killed while jumping ashore from vessel. (See Public Health Reports, Feb. 26, 1926, p. 408.)

### **SMALLPOX**

Arabia: Aden.....	Jan. 31-Feb. 6.....	1		
Bahamas.....		*		In Nassau district. Stated to have been imported. Reported under date of Feb. 23, 1926.
Brazil: Rio de Janeiro.....	Dec. 27-Jan. 16.....	37	29	
British South Africa: Northern Rhodesia.....	Jan. 5-11.....	2		
Canada.....				Feb. 21-27, 1926: Cases, 36.
Alberta.....	Feb. 21-27.....	3		
Manitoba.....	do.....	4		
Ontario.....	do.....	19		
Toronto.....	do.....	1		
Saskatchewan.....	do.....	10		
Saskatoon.....	Feb. 14-20.....	1		
China: Amoy.....	Jan. 17-30.....		3	
Foochow.....	Jan. 17-23.....			Present.
Hongkong.....	do.....	2		
Manchuria— Dairen.....	Jan. 11-17.....	7	2	
Shanghai.....	Jan. 24-Feb. 6.....	15	28	Cases in foreign population in International Settlement and French Concession; deaths, Chinese and foreign.
South Manchurian Rail- way line— Changchun.....	Jan. 31-Feb. 6.....	4		
Kungchuling.....	do.....	1		
Tientsin.....	Jan. 23-30.....	1		
Egypt: Alexandria.....	Jan. 29-Feb. 4.....	2	1	
Great Britain: Hull.....	Feb. 7-20.....	6		
Newcastle-on-Tyne.....	do.....	1		
India.....				Dec. 27, 1925-Jan. 2, 1926: Cases, 3,869; deaths, 980.
Bombay.....	Jan. 10-16.....	19	9	
Calcutta.....	Jan. 17-23.....	56	27	
Karachi.....	Jan. 18-30.....	9	3	
Madras.....	Jan. 24-30.....	4	1	
Indo-China (French): Saigon.....	Jan. 11-17.....	1		Including 100 square kilometers of surrounding country.
Iraq: Bagdad.....	Jan. 24-30.....	6	2	
Italy: Genoa.....	Feb. 1-10.....	2		
Java: Buitenzorg.....	Nov. 29-Dec. 5.....	1		
Cheribon.....	Dec. 6-12.....	1		
Malang.....	Dec. 27-Jan. 2.....	1		
Surabaya.....	Jan. 3-9.....	25	6	East Java and Madoera.
Latvia.....				Dec. 1-31, 1925: Cases, 3.
Malta.....				Jan. 1-31, 1926: Cases, 15.
Mexico: Aguascalientes.....	Feb. 14-27.....		4	
Guadalajara.....	Feb. 23-Mar. 1.....		1	
San Luis Potosi.....	Feb. 21-27.....		6	

# CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued

## Reports Received During Week Ended March 19, 1926—Continued

### SMALLPOX—Continued

Place	Date	Cases	Deaths	Remarks
Netherlands:				
Hague, The.....	Jan. 30-Feb. 6.....	1	1	
Palestine:				
Hebron.....	Jan. 26-Feb. 1.....	2	-----	
Persia:				
Teheran.....	-----	-----	-----	Sept. 22-Oct. 22, 1925: Deaths, 262.
Portugal:				
Lisbon.....	Jan. 18-31.....	-----	6	
Oporto.....	Jan. 31-Feb. 13.....	1	1	
Siam:				
Bangkok.....	Jan. 17-23.....	5	1	
Union of South Africa:				
Cape Province.....	Jan. 17-23.....	-----	-----	Outbreaks.
On vessel.....	Feb. 21.....	2	-----	Mexican steamer Montezuma, at Port of Ensenada, Mexico.

### TYPHUS FEVER

China:				
Harbin.....	Jan. 29-Feb. 4.....	2	-----	
Latvia.....	-----	-----	-----	December, 1925: Cases, 10.
Mexico:				
Mexico City.....	Feb. 14-20.....	2	-----	Including municipalities in Federal District.
Turkey:				
Constantinople.....	Jan. 24-30.....	3	-----	
Union of South Africa:				
Cape Province.....	Jan. 17-23.....	-----	-----	Outbreaks in two districts.

## Reports Received from December 26, 1925, to March 12, 1926<sup>1</sup>

### CHOLERA

Place	Date	Cases	Deaths	Remarks
Chosen.....	October, 1925.....	6	-----	
India:				
Calcutta.....	Nov. 1-28.....	101	80	Oct. 18-Dec. 10, 1925: Cases, 18,097; deaths, 10,618.
Do.....	Dec. 8-26.....	-----	54	
Do.....	Dec. 27-Jan. 10.....	-----	41	
Madras.....	Nov. 15-Jan. 2.....	174	70	
Do.....	Jan. 3-23.....	41	32	
Rangoon.....	Nov. 8-Dec. 5.....	4	4	
Indo-China:				
Province—				
Annam.....	Sept. 1-30.....	2	2	September, 1925: Cases, 9; deaths, 8. September, 1924: Cases, 7; deaths, 4. (European cases, 2.)
Cochin China.....	.....do.....	5	3	September, 1924: None.
Saigon.....	Jan. 4-10.....	1	1	September, 1924: 1 case; 1 death. Including 100 kilometers of surrounding country.
Tonkin.....	September, 1925.....	2	-----	September, 1924: None.
Japan.....	Aug. 30-Oct. 17.....	409	-----	
Do.....	Oct. 25-Nov. 28.....	82	-----	
Philippine Islands:				
Manila.....	Nov. 9-Jan. 3.....	15	10	
Do.....	Jan. 4-18.....	5	17	
Province—				
Bataan.....	Nov. 30-Dec. 26.....	29	25	
Bulacan.....	Oct. 18-Nov. 7.....	92	64	
Do.....	Nov. 23-Dec. 31.....	200	88	
Laguna.....	Nov. 23-Dec. 26.....	18	14	
Nueva Ecija.....	.....do.....	6	2	
Pampanga.....	Nov. 1-7.....	1	1	
Do.....	Nov. 23-Dec. 31.....	113	85	
Rizal.....	Sept. 27-Nov. 21.....	75	21	
Romblon.....	Dec. 7-13.....	23	12	

<sup>1</sup> From medical officers of the Public Health Service, American consuls, and other sources

# CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued

Reports Received from December 26, 1925, to March 12, 1926—Continued

## CHOLERA—Continued

Place	Date	Cases	Deaths	Remarks
Russia.....	May-June.....	7	-----	
Do.....	July-August.....	4	-----	
Siam:				
Bangkok.....	Oct. 4-Nov. 14.....	108	68	
Do.....	Nov. 22-Dec. 26.....	270	149	
Do.....	Dec. 27-Jan. 16.....	85	60	
On vessel:				
Steamship.....	Oct. 3.....	9	-----	Arrived at Bangkok, Siam: cases in coolie passengers.

## PLAGUE

Argentina.....	-----	-----	-----	Jan. 24-30, 1926: Six cases, occurring in interior provinces of Salta and Santa Fe.
Brazil:				
Bahia.....	Nov. 8-Dec. 27.....	3	1	
Do.....	Dec. 27-Jan. 2.....	1	1	
Santos.....	Dec. 8-21.....	-----	2	
British East Africa:				
Kenya:				
Kisumu.....	Nov. 22-Dec. 5.....	1	2	
Uganda Protectorate.....	September-November.....	338	308	
Canary Islands:				
La Laguna.....	Dec. 24.....	3	2	
Las Palmas.....	do.....	1	-----	
Do.....	Jan. 7.....	1	1	
Santa Cruz de Tenerife.....	Dec. 18-27.....	3	-----	
Do.....	Dec. 28-Feb. 1.....	3	-----	
Celebes:				
Makassar.....	Dec. 29-Jan. 4.....	4	4	Netherlands East Indies.
Ceylon:				
Colombo.....	Nov. 15-Dec. 5.....	3	3	1 plague rodent.
Do.....	Dec. 27-Jan. 16.....	2	2	
China:				
Nanking.....	Nov. 15-Jan. 23.....	-----	-----	Prevalent.
Ecuador:				
Eloy Alfaro.....	Jan. 1-15.....	1	-----	
Guayaquil.....	Nov. 1-Dec. 31.....	31	12	
Do.....	Jan. 1-31.....	34	14	Rats taken, Nov. 1-Dec. 31, 1925, 49,370; rats found infected, 281.
Recreo (country estate).....	do.....	1	-----	Rats taken, Jan. 1-31, 1926, 24,672; rats found infected, 234.
Egypt:				
Beni Suef.....	Nov. 18.....	1	1	Jan. 1-Dec. 9, 1925: Cases, 138.
Fayoum Province.....	Dec. 8-9.....	1	1	Corresponding period, 1924: Cases, 365.
Greece:				
Athens.....	Nov. 1-30.....	18	4	Including Piræus.
Do.....	Jan. 1-31.....	14	3	
Patras.....	Nov. 13-Dec. 12.....	4	1	
Hawaii Territory:				
Pasaulo.....	-----	-----	-----	Jan. 29, 1926: Plague-infected rat found in vicinity.
India:				
Bombay.....	Dec. 6-12.....	1	1	Oct. 18-Dec. 26, 1925: Cases, 13,259; deaths, 9,344.
Do.....	Jan. 3-9.....	2	2	
Calcutta.....	Dec. 6-12.....	1	1	
Karachi.....	Nov. 1-Dec. 19.....	4	3	
Madras.....	Oct. 25-Nov. 7.....	75	41	
Do.....	Nov. 15-21.....	35	22	
Do.....	Dec. 20-26.....	108	64	
Rangoon.....	Oct. 25-Dec. 26.....	23	15	
Do.....	Dec. 27-Jan. 16.....	10	8	
Indo-China:				
Province—				
Cambodia.....	Sept. 1-30.....	11	11	September, October, 1925: Cases, 25; deaths, 23. September, 1924, fatal, 12.
Cochin China.....	September-October.....	14	12	September, 1924: Cases, 9; deaths, 9.
Iraq:				
Bagdad.....	Dec. 13-Jan. 2.....	7	3	September, 1924: 1 case, 1 death.



# **CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued**

**Reports Received from December 26, 1925, to March 12, 1926—Continued**

## **PLAGUE—Continued**

Place	Date	Cases	Deaths	Remarks
<b>Java:</b>				
Batavia.....	Oct. 24-Nov. 6....	94	89	Province
Do.....	Nov. 14-Jan. 1....	315	297	
Do.....	Jan. 2-15.....	63	63	
Cheribon.....	Sept. 27-Oct. 17...	-----	166	Epidemic in 1 locality. Do.
Do.....	Nov. 15-28.....	-----	59	
Djokjakarta.....	Oct. 20-Nov. 9....	-----	-----	
Kedui.....	Dec. 7.....	-----	-----	Do.
Pekalongan.....	Sept. 27-Oct. 17...	-----	42	
Do.....	Nov. 8-28.....	-----	80	
Rembang.....	Oct. 20.....	-----	-----	Do.
Surabaya.....	Oct. 11-Dec. 26....	59	59	
Do.....	Dec. 27-Jan. 2....	10	10	
Tegal.....	Sept. 27-Oct. 17...	6	6	Nov. 1-30, 1925: Cases, 232; deaths, 220.
Do.....	Nov. 8-28.....	-----	14	
<b>Madagascar:</b>				
<b>Province—</b>				
Itasy.....	Sept. 16-Oct. 31...	20	20	
Do.....	Nov. 16-30.....	13	13	
Moramanga.....	Sept. 16-Nov. 30...	25	25	
Tananarive.....	do.....	368	341	
<b>Town—</b>				
Fort Dauphin.....	do.....	6	3	
Tamatave (port).....	Sept. 16-30.....	3	2	
Do.....	Oct. 16-Nov. 30...	9	9	
Tananarive.....	Sept. 16-30.....	2	2	
Do.....	Nov. 1-30.....	11	11	
Mauritius Island.....	Sept. 20-Dec. 26....	21	18	
Pamplemousses.....	Oct. 1-Nov. 30....	3	2	
Port Louis.....	do.....	4	1	
Rivière du Rempart.....	do.....	2	-----	
<b>Netherlands India:</b>				
<b>Celebes Island—</b>				
Makassar.....	Dec. 12.....	-----	-----	Epidemic.
Nigeria.....	August-October....	496	371	
<b>Peru:</b>				
Huacho.....	Jan. 26.....	15	-----	Port 60 miles north of Callao. In hospital. Some cases in province. 12 or 15 cases reported unofficially.
Lima.....	Jan. 1-31.....	20	-----	
Mollendo.....	do.....	-----	-----	
Russia.....	May-June.....	67	-----	
Do.....	July-September....	157	-----	
Senegal.....	September-October..	45	25	
<b>Siam:</b>				
Bangkok.....	Aug. 23-Oct. 31....	53	43	
Do.....	Nov. 15-23.....	3	3	
Do.....	Jan. 3-10.....	36	31	
<b>Straits Settlements:</b>				
Singapore.....	Nov. 1-Dec. 5....	8	8	
<b>Syria:</b>				
Beirut.....	Nov. 11-20.....	1	-----	
<b>Union of South Africa:</b>				
<b>Cape Province—</b>				
Kimberley district.....	Dec. 13-19.....	1	-----	European. Native. On farm.
Middleburg district.....	Dec. 6-12.....	1	-----	
Steynsburg district.....	Nov. 15-21.....	1	-----	
<b>Orange Free State—</b>				
Boshof district.....	Nov. 20-Dec. 5....	1	1	In native. Native. On farm.
Bothaville district.....	Dec. 6-12.....	1	1	

## **SMALLPOX**

Algeria:				
Algiers.....	Nov. 21-Dec. 31....	177	-----	
Do.....	Jan. 1-10.....	64	-----	
Do.....	Jan. 21-31.....	36	-----	
Arabia:				
Aden.....	Nov. 29-Dec. 5....	1	-----	Imported.
Do.....	Jan. 10-18.....	2	1	
Argentina:				
Rosario.....	October.....		1	

# CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued

Reports Received from December 26, 1925, to March 12, 1926—Continued

## SMALLPOX—Continued

Place	Date	Cases	Deaths	Remarks
Australia:				
Queensland—				
Brisbane	Dec. 9-15	1		
Brazil:				
Para	Jan. 10-30	25	5	
Rio de Janeiro	Nov. 1-23	134	72	
Do.	Dec. 6-26	65	26	
British East Africa:				
Kenya—				
Mombasa	Nov. 15-Dec. 19	14	6	
Do.	Dec. 27-Jan. 2	1		From mainland.
Uganda Protectorate	Sept. 1-Oct. 31	8	4	
British South Africa:				
Southern Rhodesia	Nov. 13-Dec. 23	3		
Canada				
Alberta	Jan. 10-Feb. 26	26		Sept. 13-Jan. 2: In 7 Provinces, 186 cases. Jan. 3-23, 1926, cases, 115. Jan. 31-Feb. 6, 1926, cases, 33.
Calgary	Dec. 13-19	1		From Drumheller, vicinity of Calgary.
British Columbia—				
Vancouver	Jan. 4-10	1		
Manitoba	Jan. 3-Feb. 13	22		
Winnipeg	Dec. 13-19	2		
Do.	Jan. 3-Feb. 6	9		
New Brunswick—				
Northumberland	Dec. 6-13	1		
Ontario	December, 1925	32	1	
Do.	Jan. 1-Feb. 13	103		
Admaston	Jan. 1-31	11		
Ottawa	Dec. 6-12	2		
Do.	Jan. 3-Feb. 6	2		
Toronto	Dec. 27-Jan. 2	1		
Do.	Jan. 3-23	21		
Do.	Feb. 6-20	3		
Trenton	Jan. 1-31	7		
Saskatchewan	Jan. 3-Feb. 13	39		
Moose Jaw	do	2		
Regina	Jan. 24-30	1		
Ceylon:				
Colombo	Dec. 6-12	1		Port case.
Do.	Jan. 3-9	2		Do.
China:				
Amoy	Oct. 25-Dec. 19		1	
Do.	Jan. 10-16			Present.
Antung	Dec. 7-20	2		
Chungking	Nov. 15-Jan. 23			Do.
Foochow	Nov. 1-Jan. 9			Do.
Hankow	Nov. 14-Dec. 26	4		
Do.	Jan. 10-16	1		
Hongkong	Nov. 22-Dec. 26	4		
Do.	Jan. 3-16	2		
Manchuria—				
An-shan	Dec. 6-12	1		
Do.	Jan. 10-30	3		South Manchurian Railway.
Changchun	do	10		Do.
Dairen	Oct. 19-Dec. 27	73	15	
Do.	Dec. 28-Jan. 10	20	4	
Fushun	Jan. 17-23	1		Do.
Harbin	Jan. 1-7	1		
Kal-yuan	Jan. 10-30	4		Do.
Lio-yang	Jan. 17-23	1		Do.
Mukden	Oct. 24-Nov. 15	1		Do.
Do.	Jan. 24-30	1		Do.
Swatow	Nov. 22-Jan. 30			Prevalent.
Tieh-ling	do	2		
Nanking	Nov. 21-Dec. 26			Do.
Do.	Dec. 27-Jan. 9			Do.
Shanghai	Oct. 25-Jan. 2	37	36	
Do.	Jan. 3-23	24	49	Cases, foreign only.
Tientsin	Nov. 1-Dec. 19	2		
Egypt:				
Alexandria	Dec. 3-31	5	2	
Do.	Jan. 8-14	2	1	
Estonia				November, 1925: Cases, 3.

# CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued

Reports Received from December 26, 1925, to March 12, 1926—Continued

## SMALLPOX—Continued

Place	Date	Cases	Deaths	Remarks
France.....				September-October, 1925: Cases, 91.
Gold Coast.....	September, 1925...	14	4	
Great Britain:				
England and Wales.....				Nov. 15-Dec. 26, 1925: Cases, 790.
Hull.....	Dec. 27-Jan. 23.....	29		Dec. 27-Jan. 30, 1926: Cases, 1,526.
Leeds.....	Jan. 14-Feb. 6.....	4		
Newcastle-on-Tyne.....	Nov. 29-Dec. 19.....	6		
Do.....	Dec. 27-Feb. 6.....	20		
Nottingham.....	Nov. 22-Dec. 23.....	9		
Do.....	Dec. 27-Jan. 9.....	2		
Sheffield.....	Nov. 22-Dec. 12.....	7		
Do.....	Dec. 29-26.....	3		
Do.....	Dec. 27-Feb. 6.....	12		
South Shields.....	Feb. 9.....			Reported present in severe form. Locality on Tyne River, 10 miles from Newcastle; present in Arab quarters of town. Oct. 1-31, 1925: Cases, 16.
Greece.....				
Athens.....	Nov. 1-30.....	17	1	
Do.....	Jan. 1-31.....	23	1	
India.....				Oct. 18-Dec. 26, 1925: Cases, 19,472; deaths, 4,440.
Bombay.....	Nov. 8-Dec. 26.....	26	20	
Do.....	Dec. 27-Jan. 9.....	26	13	
Calcutta.....	Nov. 29-Dec. 26.....	48	25	
Do.....	Dec. 27-Jan. 16.....	73	36	
Karachi.....	Nov. 1-21.....	23		
Do.....	Nov. 29-Dec. 5.....	4	2	
Do.....	Dec. 13-19.....	3		
Do.....	Dec. 29-Jan. 16.....	12	6	
Madras.....	Nov. 15-Dec. 26.....	17	5	
Do.....	Dec. 27-Jan. 23.....	28	7	
Rangoon.....	Oct. 25-Nov. 28.....	3		
Do.....	Dec. 6-26.....	4	1	
Do.....	Dec. 27-Jan. 16.....	13	1	
Indo-China.....				September-October, 1925: Cases, 204; deaths, 62. September, 1924: Cases, 78; deaths, 22.
Province—				
Annam.....	Sept. 1-Oct. 31.....	90	23	September, 1924: Cases, 8; deaths, 2.
Cambodia.....	do.....	72	30	September, 1924: Cases, 16; deaths, 1.
Cochin China.....	do.....	61	30	September, 1924: Cases, 43; deaths, 19.
Saigon.....	Dec. 21-27.....	2	1	Including 100 kilometers of surrounding country.
Do.....	Jan. 1-10.....	1		September, 1924: Cases, 11.
Tonkin.....	do.....	22		Sept. 6-Oct. 17, 1925: Cases, 81; deaths, 40.
Iraq.....				
Bagdad.....	Nov. 1-14.....	4	4	
Do.....	Nov. 22-Dec. 26.....	15	11	
Do.....	Dec. 27-Jan. 2.....	5	2	
Italy.....				Aug. 2-Oct. 31, 1925: Cases, 38.
Genoa.....	Jan. 21-31.....	2		
Rome.....	Oct. 12-25.....	1		
Jamaica.....				Nov. 20-Dec. 26, 1925: Cases, 95. Dec. 27-Jan. 30, 1926: Cases, 138. Reported as alastrim.
Kingston.....	Nov. 29-Dec. 26.....	43		Reported as alastrim.
Do.....	Dec. 27-Jan. 30.....	48		Do.
Japan:				
Taiwan.....	Nov. 11-Dec. 10.....	3		
Yokohama.....	Dec. 14-20.....	1		
Do.....	Feb. 23.....	1		
Java:				
Batavia.....	Oct. 24-30.....	1		
Do.....	Nov. 14-Dec. 25.....	7		
Cheribon.....	Nov. 8-14.....	1		
Kraksaan.....	Oct. 11-17.....	11		
Malang.....	do.....	2		
North Bantam.....	Oct. 4-17.....	4		
Pekalongan.....	Oct. 25-31.....	1		

# **CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued**

**Reports Received from December 26, 1925, to March 12, 1926—Continued**

## **SMALLPOX—Continued**

Place	Date	Cases	Deaths	Remarks
Java—Continued.				
Probolingó.....	Oct. 11-17.....	1	—	
Surabaya.....	Oct. 11-Dec. 26.....	633	104	
Do.....	Dec. 27-Jan. 2.....	17	10	
South Bantam.....	Oct. 11-17.....	1	—	
Tegal.....	Oct. 4-10.....	9	1	
Latvia.....				December, 1925: Cases, 3.
Malta.....	Nov. 1-Dec. 31.....	21	3	
Mexico.....				July-September, 1925: Deaths, 1,157.
Aguascalientes.....	Dec. 13-Jan. 2.....	4	3	
Do.....	Jan. 3-30.....	—	7	
Durango.....	Dec. 1-31.....	—	1	
Do.....	Jan. 1-31.....	—	2	
Guadalajara.....	Feb. 1-22.....	—	3	
Mexico City.....	Nov. 28-Dec. 5.....	1	—	Including municipalities in Federal District
Do.....	Jan. 3-Feb. 6.....	4	—	Do.
San Luis Potosí.....	Jan. 17-Feb. 20.....	—	27	
Tampico.....	Dec. 21-Jan. 2.....	1	1	
Do.....	Jan. 2-Feb. 20.....	5	—	
Torreón.....	Nov. 1-Dec. 31.....	—	51	
Do.....	Jan. 1-31.....	—	33	
Nigeria.....	August-October.....	211	6	
Persia:				
Teheran.....	July 23-Sept. 22.....	—	203	
Peru:				
Arequipa.....	Oct. 1-Dec. 31.....	—	2	
Poland.....				Nov. 1-28, 1925: Cases, 9.
Portugal:				
Lisbon.....	Oct. 4-31.....	124	—	
Do.....	Nov. 16-Dec. 27.....	—	60	
Do.....	Nov. 14-Dec. 26.....	187	—	
Do.....	Dec. 27-Jan. 17.....	40	17	
Oporto.....	Nov. 22-Dec. 19.....	2	3	
Do.....	Dec. 27-Jan. 2.....	1	—	
Russia.....				May-June, 1925: Cases, 2,333.
Do.....	July-August.....	760	—	
Siam.....				July 12-Sept. 5, 1925: Cases, 11; deaths, 6.
Bangkok.....	Dec. 20-25.....	3	1	
Do.....	Dec. 26-Jan. 16.....	8	5	
Sierra Leone:				
Konno district.....	Dec. 16-31.....	5	—	
Spain:				
Madrid.....	Year 1925.....	—	18	
Málaga.....	Nov. 29-Dec. 5.....	—	2	
Do.....	Dec. 27-Jan. 2.....	—	1	
Valencia.....	Dec. 20-26.....	1	—	
Do.....	Dec. 27-Jan. 2.....	1	—	
Do.....	Jan. 10-Feb. 6.....	9	—	
Straits Settlements:				
Singapore.....	Dec. 20-26.....	1	—	
Switzerland.....				June 28-Nov. 21, 1925: Cases, 63.
Lucerne.....	Oct. 1-Nov. 30.....	8	—	
Zürich.....	Dec. 27-Jan. 2.....	1	—	
Trinidad (West Indies):				
Port of Spain.....	Jan. 22.....	1	—	Imported.
Tunisia:				
Tunis.....	Nov. 21-30.....	2	—	
Do.....	Dec. 11-31.....	10	1	
Do.....	Jan. 1-20.....	5	—	
Union of South Africa:				
Orange Free State—				
Kuruman district.....	Jan. 10-16.....	—	—	Outbreaks.
Ladybrand district.....	Dec. 27-Jan. 2.....	—	—	Do.
Transvaal.....				
Belfast district.....	.....do.....	—	—	Do.
Germiston district.....	Jan. 2-9.....	—	—	Do.
Pretoria district.....	Dec. 6-12.....	—	—	Outbreaks. In native compound.

# **CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued**

**Reports Received from December 26, 1925, to March 12, 1926—Continued**

## **TYPHUS FEVER**

Place	Date	Cases	Deaths	Remarks
Algeria:				
Algiers.....	Nov. 1-Dec. 20.....	2	—	
Argentina:				
Rosario.....	Oct. 13-Dec. 31.....	2	—	
Bulgaria:				
Sofia.....	Sept. 1-Nov. 30.....	29	2	
Do.....	Dec. 25-31.....	1	1	
Do.....	Jan. 8-14.....	2	—	
Chile:				
Valparaiso.....	Nov. 29-Jan. 2.....	—	2	
China:				
Antung.....	Nov. 29-Dec. 27.....	5	1	
Do.....	Jan. 4-10.....	1	1	
Hongkong.....	Dec. 27-Jan. 2.....	1	—	
Manchuria—				
Harbin.....	Dec. 17-23.....	1	—	
Czechoslovakia	October-November.....	94	—	
Egypt:				
Alexandria.....	Jan. 8-14.....	1	—	
Cairo.....	Nov. 5-11.....	2	2	
Port Said.....	Nov. 19-25.....	1	—	
Finland.....	July-October.....	4	—	October, 1925: 1 case.
France.....	Oct. 25-31.....	1	—	
Germany.....				
Greece:				
Athens.....	Nov. 1-30.....	11	2	
Do.....	Jan. 1-31.....	19	4	
Saloniki.....	Dec. 29-Jan. 4.....	1	—	
Hungary.....				November, 1925: Cases, 3.
Ireland:				
Cork County—				
Cork.....	Dec. 26-Jan. 1.....	2	—	
Do.....	Jan. 2-8.....	5	—	
Dumanway.....	Nov. 14.....	1	—	
Galway County.....	Oct. 17.....	1	—	
Latvia.....	October, 1925.....	2	—	
Lithuania.....				September-October, 1925: Cases, 9; deaths, 1.
Mexico.....				July-September, 1925: Deaths, 90.
Aguascalientes.....	Dec. 14-19.....	1	—	
Durango.....	Dec. 1-31.....	—	1	
Do.....	Jan. 1-31.....	—	1	
Guadalajara.....	Dec. 8-28.....	—	2	
Do.....	Dec. 29-Jan. 4.....	—	1	
Mexico City.....	Nov. 22-Dec. 28.....	145	—	Including municipalities in Federal District.
Do.....	Dec. 27-Feb. 13.....	56	—	Do.
San Luis Potosi.....	Feb. 6-13.....	—	1	
Tampico.....	Dec. 21-Jan. 10.....	1	1	
Torreón.....	November, 1925.....	—	1	
Vera Cruz.....	Feb. 12.....	—	1	
Morocco.....	August-November.....	39	—	
Norway.....				November, 1925: Case, 1.
Palestine:				
Gaza.....	Dec. 18.....	1	—	
Jaffa.....	Dec. 1-7.....	1	—	
Nazareth.....	Nov. 3-9.....	1	—	
Safad.....	Nov. 24-30.....	1	—	
Tel-Aviv.....	do.....	1	—	
Peru:				
Arequipa.....	October-December.....	—	3	
Poland.....	Oct. 11-Nov. 14.....	142	16	
Rumania.....				July-August, 1925: Cases, 107; deaths, 15.
Russia.....				May-June, 1925: Cases, 10,680.
Do.....				July-September, 1925: Cases, 3,851.

# **CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER**—Continued

**Reports Received from December 26, 1925, to March 12, 1926**—Continued

## **TYPHUS FEVER**—Continued

Place	Date	Cases	Deaths	Remarks
Union of South Africa.....				October, 1925. Cases, 88; deaths 7 (colored). Cases, European, 7. December, 1925: Cases, 78; deaths, 9. Colored: Cases, 73; deaths, 8.
Cape Province.....	Oct. 1-31.....	63	5	Colored.
Do.....	Nov. 8-Dec. 31....	47	8	
Do.....	Jan. 3-16.....			Outbreaks.
Middleburg district.....	Dec. 6-12.....	1		European. On farm.
Natal.....	Oct. 1-Dec. 5.....	1		
Durban.....	Jan. 3-16.....	1		
Orange Free State.....	Nov. 29-Dec. 5....	23	1	
Do.....	Dec. 1-31.....	8	1	
Bethulia district.....	Dec. 6-12.....			Outbreaks.
Bothaville district.....	do.....	1		Native. On farm.
Transvaal.....	Oct. 1-31.....	1	1	
Do.....	Dec. 1-31.....	18		
Bloemhof district.....	Dec. 27-Jan. 2....			Outbreaks. On farm.

## **YELLOW FEVER**

Gold Coast.....	September-October.....	2	1	
Nigeria.....	August-October....	3	2	
Senegal.....	November, 1925....	3	2	

MAY 1926  
TREASURY DEPARTMENT

# PUBLIC HEALTH REPORTS

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PUBLIC HEALTH SERVICE

VOLUME 41 :: :: NUMBER 13

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## ===== SPECIAL ARTICLES =====

Relation of Endemic Goiter to Potential Foci of Infection  
Recent Court Decisions Relating to the Public Health



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# UNITED STATES PUBLIC HEALTH SERVICE

HUGH S. CUMMING, *Surgeon General*

## DIVISION OF SANITARY REPORTS AND STATISTICS

Asst. Surg. Gen. B. J. LLOYD, *Chief of Division*

The PUBLIC HEALTH REPORTS are issued weekly by the United States Public Health Service through its Division of Sanitary Reports and Statistics, pursuant to acts of Congress approved February 15, 1893, and August 14, 1912.

They contain: (1) Current information of the prevalence and geographic distribution of preventable diseases in the United States in so far as data are obtainable, and of cholera, plague, smallpox, typhus fever, yellow fever, and other communicable disease throughout the world. (2) Articles relating to the cause, prevention, or control of disease. (3) Other pertinent information regarding sanitation and the conservation of the public health.

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## THE RELATIONSHIP OF ENDEMIC GOITER TO CERTAIN POTENTIAL FOCI OF INFECTION

By ROBERT OLESEN, Surgeon, and NEIL E. TAYLOR, Acting Assistant Surgeon, United States Public Health Service

### GENERAL CONSIDERATIONS

Whether or not goiter is caused by foci of infection is a question of manifest importance in both the prevention and treatment of the malady. Unfortunately, there appears to be no unanimity of opinion or uniformity of experience on the subject. The proponents of the iodine deficiency theory, believing the deprivation of iodine to be the principal if not the sole agent in the causation of goiter, seldom mention other possible etiological factors. Other observers, however, incline to the belief that foci of infection are definitely responsible for endemic goiter. Still others conclude, as the result of practical investigation, that there is no causal relation between such sources of infection and goiter. Consequently, the subject is surrounded by contradictory as well as confusing assumptions and statements.

During the course of a study in Cincinnati devoted primarily to the determination of the effects of endemic goiter upon physical growth, an opportunity was presented for making certain observations upon the condition of the teeth and tonsils. These facts have been correlated with the thyroid findings in an effort to discover, if possible, the existence of a possible relationship. In presenting this discussion the literature pertaining to the subject will first be reviewed briefly. Thereafter the scope and limitations of the study will be presented. Finally the results of the investigation will be given.

### 1. REFERENCES FROM THE LITERATURE

In this section a sufficient number of references will be cited to illustrate the trend of thought on the subject. The citations, of course, are far from complete, but, nevertheless, they illustrate the tendencies of experience and belief. Necessarily the opinions and the observations upon which they are based vary within wide limits.

*Negative findings.*—Categorical denial of the existence of a relationship between thyroid enlargement and foci of infection has been made by Hertzler (1). A study of the problem by Dillingham, one of Hertzler's assistants, resulted negatively.

Gamble (2) sent a questionnaire to physicians in Mississippi in order to learn their experience relative to the influence of focal infections upon the thyroid. The majority, contrary to Gamble's personal experience, had failed to note a correlation.

*Foci of infection as cause of goiter.*—The majority of the contributions to the literature on foci of infection as a cause of endemic goiter are positive and affirmative in character.

Harrower (3), for instance, believes that the coincident occurrence of oral and dental infections in simple goiter has been accurately demonstrated.

Evans (4) regards a deficiency of iodine as only one, although the most important, cause of goiter. In addition he cites bad teeth, infected tonsils, suppurations in the nose, digestive disturbances, mental shock, and other powerful emotions as responsible factors.

In addition to local infections, Pern (5) maintains that a calcium deficiency contributes to thyroid enlargement. Furthermore, in his opinion, goiter is caused by intestinal infection and a fat deficiency.

Bram (6) states that focal infections from teeth, tonsils, nasal sinuses, and, more remotely, from gastro-intestinal and genito-urinary affections, are commonly responsible for thyroid enlargement.

Other observers, while professing to believe that goiter is caused by foci of infection, are more cautious in expressing their opinions. Brown (7), for instance, mentions the possibility of a relationship between goiter and tonsillar infections. He inclines to the belief, however, that the tonsil is no more likely to be the focus of infection than any other nidus, e. g., sinuses, teeth, and gall bladder. Brown urges that throat specialists pay particular attention to the state of the thyroid in all cases of infected tonsils. All who treat thyroid disorders are urged by him to regard infected tonsils as a possible exciting factor.

Jackson (8), basing his conclusions upon an experience with 300 colloid goiters, believes that the removal of septic tonsils proves of some benefit in certain cases.

In discussing the indications for tonsillectomy, Greene (9) maintains that the diseased tonsil should be viewed with suspicion in the presence of thyroid enlargement. At the same time he warns that other foci of infection should not be overlooked.

Booth (10) has frequently noted improvement in adolescent goiter after foci of infection have been eliminated. He contends that goiter is the indirect result of focal or general infection rather than the direct result of some specific infection such as may be borne by water. He regards infection of the mouth, sinuses, tonsils, gall bladder, appendix, or the presence of abnormal flora in the intestinal tract, as possible causes of goiter.

From these extracts from the literature it will be apparent that there is considerable diversity of opinion concerning the possible influence of foci of infection upon endemic goiter.

## 2. SCOPE AND LIMITATIONS OF PRESENT STUDY

As previously mentioned, the present study concerning the possible relationship between potential foci of infection and endemic goiter was carried on while certain physical measurements were being secured in the Cincinnati public schools during the 1924-25 school session.

The children examined, all of whom were white, attended eight schools in Cincinnati selected because of their diversified character. Thus, three of the schools were located in the poorer sections of the city, two in the sections of moderate economic status, and one in the best section of the city. In addition to these there was one vocational school, attended largely by girls, and one junior high school.

In the six elementary schools visited, the children examined attended the fifth, sixth, seventh, and eighth grades. In the vocational and junior high schools most of the children were older and attended higher grades. By this process of selection a cross section of the elementary school population was obtained. Moreover, this cross section was representative of various school ages, grades, sections of the city, environment and social status.

The observations were all made by experienced physicians and included, for the purposes of the present investigation, the condition of the teeth and tonsils. Notations were made concerning the degree of dental decay (slight or marked) and the number of teeth involved. With regard to the tonsils, observations were made of the degree of enlargement (slight, moderate, or marked) and also whether the organs were cryptic in character. Notations were also made of the number of children with apparently normal tonsils and of those in whom the tonsils had been removed by operative procedure. At the same time the condition of the thyroid gland was ascertained.

*Limitations of the observations on teeth.*—It should be fully realized that dental decay is not synonymous with focal infection. In fact, it is probable that septic absorption occurs most freely when the decay has extended to the root canal. Obviously there was little opportunity for determining this fact accurately during the survey. However, very many of the markedly decayed teeth were presumably serving as foci of infection. It is also reasonable to suppose that the possibilities for systemic infection were increased with successively greater numbers of markedly decayed teeth. A distinction was made between slightly and markedly decayed teeth. In the former class were included teeth with small, distinct, and easily

remediable defects. Under the heading of markedly decayed teeth were included those with large cavities of manifestly long duration, perforations of the pulp cavity and those obviously in need of extraction.

*Limitations of the observations on tonsils.*—Enlarged tonsils are not necessarily diseased and not invariably sources of infection. Consequently the classification of tonsils as slightly, moderately, and markedly enlarged must be accepted as hypertrophy rather than invariable or actual infectivity. At the same time the enlarged tonsils, when inflamed or accompanied by frequent sore throat, are presumably diseased. Moreover, appropriate treatment is indicated. Probably more expressive of actually diseased condition is the cryptic tonsil with exudation of pus.

In all probability the examinations of teeth and tonsils during the present investigation were made just as carefully as those upon which other conclusions regarding the relationship between goiter and foci of infection have been based. Whatever mistakes have occurred through errors of judgment or failure to elicit subjective symptoms of marked dental decay or tonsillar disease have been uniformly distributed throughout the series of observations. Therefore, the differences if any, between the dental and tonsillar conditions of thyroid-normal and thyroid-enlarged children should be distinctive.

### 3. RESULTS

In this section the data secured during the study are presented. Moreover, by means of tables, and analyses of the available material, the presence or absence of a relationship between thyroid enlargement and infectious foci in teeth and tonsils will be brought out.

*Ages, sex, and numbers of children.*—Of the 2,917 white children included in the investigation, 1,341 were boys and 1,576 were girls. Among the boys, 515 instances of thyroid enlargement, 38.4 per cent, were noted. A greater number of enlargements, 927, or 58.8 per cent, were recorded among the girls. The number of children of each age and the number and percentage of thyroid involvements are set forth in Table 1. It will be seen that the percentage of thyroid enlargements is considerably greater among the girls, though relatively high in both sexes. The customary decline in the percentage of involvements among boys after the age of 13 years and the steady though uneven increase among the girls of increased age are particularly noteworthy.

*Degrees of enlargement.*—In classifying the degrees of enlargement the methods described in a previous publication (11) were utilized. However, owing to the relatively small number of some of the enlargements, it was found desirable, for statistical purposes, to reduce the

5 degrees to 3. Thus the "very slight" and "slight enlargements" were combined and termed "slight;" "moderate enlargements" was allowed to stand; and "marked" and "verymarked" thickenings were combined and called "marked."

The number and percentage of each degree of thyroid enlargement, at each age between 11 and 15 years, as well as for all ages combined, are also given in Table 1. It will be seen that slight enlargements were a little over one and one-third times more frequent among the girls than among the boys, 50.4 per cent against 37.2 per cent; moderate enlargements were approximately seven times more frequent among the girls, 6.9 per cent as compared with 1 per cent; and the combined marked and very marked involvements were about seven times more frequent among the girls.

#### TEETH

The results of the dental examinations are presented in Table 2, calculations being available for both boys and girls. Satisfactory dental hygiene and good economic conditions were found to be concomitant. Even with equal opportunity for free dental prophylaxis and treatment, the child of well-to-do parents has a decided advantage over a child of poor parents. This is not due solely to superior nutrition, but mainly to the desire and actual practice of timely dental attention on the part of those who can afford to secure private and skilled service.

Sixty-one and seven-tenths per cent of the 1,341 boys and 67.1 per cent of the 1,576 girls included in the survey were found without dental decay. This indicates a slight, and usual, superiority in oral hygiene among the girls, due probably to pride in appearance and possibly to the more sheltered positions of the girls in life.

Of the 826 thyroid-normal boys, 63 per cent had teeth without signs of decay, while a slightly smaller percentage (60 per cent) of the 515 thyroid-enlarged boys were also free from dental defects. Among the girls, 66.8 per cent of the normal and 67.3 per cent of the thyroid-enlarged individuals had no evidence of dental decay. These figures indicate no decided differences in the conditions of the two general groups.

In Table 2 certain age groupings have been made for more vivid statistical display. Thus, the ages of 9 and 10, 11 and 12, 13 and 14, and 15 years and over, have been combined, respectively. Furthermore, the enlargements have been shown as slight and marked, the former comprising the slight forms of Table 1, while the latter includes the moderate and marked enlargements of the same table.

*Teeth without decay.*—Among the 9 and 10 year and the 11 and 12 year groups of boys, normal teeth were more frequent among thyroid-normal children. However, among the 13 and 14 year and

15 and over groups, sound teeth were slightly more frequent among the thyroid-enlarged boys.

Among the girls of the 9 and 10 year group the percentage having sound teeth were the same among the thyroid-normal and thyroid-enlarged. In the 11 and 12 year and the 13 and 14 year groups the advantage in normal teeth was with the thyroid-enlarged girls. Among those over 15 years of age the thyroid-normal girls had a slight superiority in normal teeth over the thyroid-enlarged individuals.

*Dental caries.*—Dental decay was noted slightly more frequently among boys than girls, the marked degree being more prevalent among both than the slight. Thus, 13.2 per cent of the boys and 11.8 per cent of the girls had slight decay, whereas 25 per cent of the boys and 21.1 per cent of the girls had marked decay.

*Slight dental decay.*—Slight decay of 1 and 2 teeth was more prevalent among boys with thyroid enlargement. Among the girls slight decay of 1, 2, 3, 4, and more than 4 teeth was more prevalent among the thyroid-enlarged. However, the differences are small and neither noteworthy nor constant.

In the 9 and 10 year group slight dental decay was more frequent among the thyroid-normal boys. In the remaining groups the excess of slight decay was found among the boys with thyroid enlargement.

In the 9 and 10 year group more of the thyroid-normal girls had slight decay than did those with enlarged thyroids. In the 11 and 12 year group of girls, and also in the 15 year and over group, slight decay was more frequent among the thyroid-enlarged. In the 13 and 14 year group the same percentages of slight decay prevailed among the thyroid-normal and the thyroid-enlarged girls.

*Marked dental decay.*—A further study of Table 2 discloses the differences in the amount of marked dental caries in the two groups under consideration. It will be noted that the percentage of marked decay among the thyroid-enlarged boys both of the 9 and 10 year group and of the 11 and 12 year group is higher than the percentage among the thyroid-normal boys. However, in the succeeding groups the excess is reversed. Marked decay occurs more frequently among the thyroid-normal boys of the 13 and 14 year group, and also of the 15 year and over group.

Among the girls, marked dental decay occurs 38.1 per cent more frequently among the thyroid-enlarged individuals of the 9 and 10 year group. In the 11 and 12, 13 and 14, and 15 and over groups the excess of marked dental decay occurs among the thyroid-normal girls.

From the foregoing observations it will be noted that there is no constancy of trend in any of the age groups or for either sex.



With relatively few exceptions the differences between percentage occurrence of slight and marked dental decay in thyroid-normal and thyroid-enlarged children are slight and insignificant.

*Dental decay and degree of thyroid enlargement.*—Whether or not marked thyroid enlargement is more frequently associated with dental decay than the lesser degrees of enlargement is another point concerning which some information is available in Table 2. Because of the relatively few marked enlargements found among the boys, little information concerning this point can be obtained from the portion of the table dealing with the boys. However, an examination of the data relating to the girls shows that both slight and marked dental decay are less frequent in girls with marked thyroid enlargement than among thyroid-normal girls or those with slight thyroid enlargement. Therefore, it may be concluded, so far as this group is concerned, that dental decay exerts no marked effect upon size of thyroid enlargement.

#### TONSILS

The statistical data relating to the conditions of the tonsils in the children examined have been set forth in Table 3. In this table the tonsillar conditions have been divided according to normality, absence, enlargement, and cryptic degeneration. The thyroid enlargements have been shown as slight and marked. As in Table 1 there have been age groupings in order to facilitate the statistical interpretation.

*Normal tonsils.*—Normal tonsils were found to a greater extent among both boys and girls with thyroid enlargement than among those with normal thyroids, 42.7 per cent among the boys and 40.2 per cent among the girls. Thus, 18.4 per cent of the tonsils examined in 515 thyroid-enlarged boys appeared to be normal, whereas 12.9 per cent of the tonsils of 826 thyroid-normal boys were normal. Normal tonsils were found in 19.7 per cent of the 927 thyroid-enlarged and in 13.9 per cent of the 649 thyroid-normal girls who were examined.

Normal tonsils were most frequent among the 16-year-old boys and the 13-year-old girls. They were least frequent among the 13-year-old boys and the 10-year-old girls. It is also interesting to note that normal tonsils were found with slightly greater frequency among thyroid-normal and thyroid-enlarged girls than among boys.

*Tonsils removed.*—More of the boys than girls had been subjected to operation for removal of tonsils. Thus, 36.4 per cent of the thyroid-normal and 33.8 per cent of the thyroid-enlarged boys were without tonsils, a slight difference in favor of the former. Among the thyroid-normal girls, 31.6 per cent had had their tonsils removed, whereas a slightly smaller number, 29.3 per cent, of the thyroid-enlarged girls had had similar operations. According to the

findings, tonsil removal was more frequent among the younger children.

When the differences between the several groups of thyroid-normal and thyroid-enlarged children are considered with regard to the absence of tonsils through operation, some interesting facts are gleaned from Table 3. Thus, among boys in all four age groups a slightly greater number of tonsils had been removed among the thyroid-normal than among the thyroid-enlarged. However, the differences are relatively small and inconstant in trend. Absence of tonsils was also noted more frequently among the thyroid-normal girls in the first three age groups. In girls aged 15 years and over, however, the tonsils had been removed more frequently among those with thyroid enlargement. While differences, often in favor of the thyroid-normal individuals, are noted in this part of the study, the evidence can not be said to be particularly striking or significant. Nor can the removal of the tonsils be advocated as an aid to goiter prevention solely on the basis of these findings.

*Enlargements of tonsils.*—When the observations concerning the tonsils were made, 3 degrees of enlargement, "slight," "moderate," and "marked," were recorded. However, because of the comparatively few enlargements of each size, the numbers have been combined for ease of statistical analysis. A study of Table 3 (part of table giving totals) shows that enlarged tonsils were more frequent among the children with normal thyroids.

When the occurrence of tonsillar enlargement is considered by age groups it will be noted that the thyroid-normal boys of the 11 and 12 year group and also the 15 year and over group have enlarged tonsils more frequently than those with enlarged thyroids. In the 9 and 10 year group and again in the 13 and 14 year group tonsillar enlargement is more frequent among the thyroid-enlarged boys.

Enlargement of the tonsils is more frequent among the thyroid-normal girls in each of the four age groups shown in Table 3. However, the discrepancies are not uniform. While some of the evidence concerning tonsillar enlargement is suggestive, it is too uneven in trend to be convincing. If anything, the data here presented suggest that enlargement of the tonsils is more often than not associated with normal thyroid glands.

*Cryptic tonsils.*—Presumably the tonsils included in this grouping had a pathological status and were capable of exerting a deleterious influence upon such organs as the thyroid. The percentage of cryptic tonsils among the thyroid-normal boys exceeded similar conditions among individuals with enlarged thyroids. Among the girls, cryptic tonsils were more frequent among those with enlarged thyroids.

In the separate age groups, cryptic tonsils were more frequent among the thyroid-enlarged boys of the 9 and 10, 11 and 12, and the

15 and over groups, though the excess rates are small and uneven in trend. In the 13 and 14 year group the thyroid-normal boys had a slightly greater percentage of cryptic tonsils than the thyroid-enlarged.

Cryptic tonsils were encountered oftener among the thyroid-enlarged girls of the 9 and 10, 13 and 14, and 15 and over age groups than among the thyroid-normal individuals of the same ages. In the 11 and 12 year group of girls, however, cryptic tonsils were present more frequently among those with normal thyroids.

When these conflicting data are considered, it is apparent that there is no consistent or convincing evidence of relationship between cryptic tonsils and thyroid status.

*Tonsillar conditions and degree of thyroid enlargement.*—It is also interesting to learn, if possible, whether marked thyroid enlargements are more frequently associated with certain tonsillar abnormalities than are slight enlargements. Certainly there are no consistent trends in Table 3 which might be interpreted as indicative of a relationship between enlarged or cryptic tonsils and slight or marked thyroid enlargement. There are, however, certain facts that should be pointed out.

As the number of marked thyroid enlargements among the boys was not great, the percentages derived from the calculations for enlarged and cryptic tonsils are of no considerable value. On the other hand, the data available from observations of tonsil status among the girls offer a little better indication of trend. It will be seen that 39.9 per cent of the girls with marked thyroid enlargement and 42.4 per cent of those with slight enlargement had enlarged tonsils, while 47.3 per cent of the thyroid-normal girls had enlarged tonsils.

The percentage of girls having cryptic tonsils was greatest among those with slight thyroid enlargement, 9 per cent, and least among the thyroid-normal individuals, with 7.2 per cent. Of the girls with marked thyroid enlargement 8.3 per cent had cryptic tonsils. From these data it will be seen that in this group, marked thyroid enlargements are not associated with enlarged or cryptic tonsils as often as are slight enlargements. It may be concluded, therefore, that degree of enlargement was not dependent, in the present series, upon tonsillar conditions.

#### SUMMARY

1. Examinations were made of the teeth and tonsils of 1,341 white boys and 1,576 white girls in 8 schools in Cincinnati for the purpose of determining whether there was a relationship between potential foci of infection and thyroid enlargement.

2. Records were kept of slight and marked thyroid enlargements as well as of slight and marked decay of teeth. In addition, there were

recorded the number of apparently normal tonsils, the absence of tonsil through operation, hypertrophy, and cryptic degeneration.

3. Slight thyroid enlargements prevailed to the extent of 37.2 per cent among the boys and 50.4 per cent among the girls. Both moderate and marked enlargements were approximately seven times more prevalent among the girls than among the boys.

4. In the group studied, slight and marked dental decay is no more characteristically associated with thyroid enlargement than with normal thyroid status. Furthermore, the degree of thyroid enlargement appears not to be dependent upon the amount of dental decay.

5. Normal tonsils were found more frequently among both boys and girls with thyroid enlargement than among those with normal thyroids.

6. Approximately one-third of the children examined had had their tonsils removed by operation. A slightly greater percentage of thyroid-normal children had had their tonsils removed than those in whom the thyroid was enlarged at the time of the examination. While differences may be noted in the several age groups as regards absence of tonsils, removal often being associated with a higher percentage of thyroid-normal individuals, the evidence is suggestive rather than striking.

7. Enlargement of the tonsils was found more frequently among boys and girls without thyroid enlargement. While some of the evidence concerning hypertrophy of the tonsils in the several age groups is suggestive, the data are too uneven in trend to be convincing.

8. There was no consistent evidence of correlation between cryptic tonsils and thyroid status.

9. Marked thyroid enlargements among the girls are not associated with enlarged or cryptic tonsils as often as are slight thyroid enlargement. The size of the thyroid enlargement is probably independent of tonsillar or dental conditions.

10. Based upon the material gathered during the present investigation, it is believed that there is no definite relation between thyroid status and potential foci of infection presumably located in decayed teeth and enlarged or cryptic tonsils.

#### COMMENT

The number of children included in the present survey was small and the observations were subject to manifest limitations. Before the relationship between thyroid enlargement and potential foci of infection in the teeth and tonsils can be regarded as definitely determined it is desirable that additional studies be made in other sections of the country on a more comprehensive scale and possibly with different methods. Nevertheless it is felt that in so far as the present study is concerned, such a relationship is non-existent.

Despite these negative findings, neglect of oral hygiene is not advocated. On the contrary, renewed efforts to insure as nearly perfect denture as possible, through appropriate nutritional guidance and practice, as well as competent dental prophylaxis and treatment, are recommended and urged. Moreover, appropriate treatment for enlarged and diseased tonsils is likewise advised.

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TABLE 1.—Number and percentage of normal and enlarged thyroids among 1,341 white boys and 1,576 white girls in the Cincinnati public schools, according to sex, age, and degree of thyroid enlargement

Thyroid status	Age											
	All ages		11		12		13		14		15	
	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls
NUMBER OF NORMAL AND ENLARGED THYROIDS												
Total.....	1,341	1,576	155	156	217	229	273	256	305	331	254	426
Normal.....	826	649	85	65	136	101	159	102	185	139	169	155
Enlarged.....	515	927	70	91	81	128	114	154	120	192	85	271
Slight.....	498	794	68	84	81	121	110	139	116	167	79	217
Moderate.....	14	109	2	7	-----	6	3	11	4	25	4	46
Marked.....	3	24	-----	-----	-----	1	1	4	-----	10	2	8
PERCENTAGE OF NORMAL AND ENLARGED THYROIDS												
Total.....	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Normal.....	61.6	41.2	54.9	41.6	62.7	44.1	58.2	39.8	60.7	42.0	66.5	36.4
Enlarged.....	38.4	58.8	45.1	58.4	37.3	55.9	41.8	60.2	39.3	58.0	33.5	63.6
Slight.....	37.2	50.4	43.8	53.9	37.3	52.9	40.3	54.3	38.0	47.5	31.1	50.9
Moderate.....	1.0	6.9	1.3	4.5	-----	2.0	1.1	4.3	1.3	7.5	1.6	10.8
Marked.....	0.2	1.5	-----	-----	-----	0.4	0.4	1.0	-----	3.0	0.8	1.9

TABLE 2.—Numbers and percentages of individuals having no dental decay, slight, and marked dental decay among 1,341 white boys and 1,576 white girls in the Cincinnati public schools, according to ages of children and degrees of thyroid enlargement

Thyroid status	Dental condition							
	Days							
	Numbers				Percentages			
	Total	Normal	Slight decay	Marked decay	Total	Normal	Slight decay	Marked decay
ALL AGES								
Total.....	1,341	829	177	335	100.0	61.7	13.2	25.0
Normal.....	826	520	93	213	100.0	63.0	11.3	25.7
Enlarged.....	515	309	84	122	100.0	60.0	16.3	23.7
Slight.....	498	298	81	119	100.0	59.8	16.2	23.8
Marked.....	17	11	3	3	100.0	64.8	17.6	17.6
9 AND 10 YEARS								
Total.....	90	47	18	25	100.0	52.3	20.0	27.8
Normal.....	53	31	11	11	100.0	58.6	20.7	20.7
Enlarged.....	37	16	7	14	100.0	43.2	18.9	37.9
Slight.....	37	16	7	14	100.0	43.2	18.9	37.9
Marked.....								
11 AND 12 YEARS								
Total.....	372	227	56	89	100.0	61.0	15.1	23.9
Normal.....	221	145	25	51	100.0	65.6	11.3	23.1
Enlarged.....	151	82	31	38	100.0	54.4	20.5	25.1
Slight.....	149	82	30	37	100.0	55.0	20.1	24.9
Marked.....	2		1	1	100.0		50.0	50.0
13 AND 14 YEARS								
Total.....	578	304	69	145	100.0	52.8	11.8	25.2
Normal.....	344	213	37	94	100.0	62.0	10.8	27.2
Enlarged.....	234	151	32	51	100.0	64.5	13.7	21.8
Slight.....	225	144	31	50	100.0	64.0	13.8	22.2
Marked.....	9	7	1	1	100.0	77.8	11.1	11.1
15 YEARS AND OVER								
Total.....	301	191	31	79	100.0	63.4	11.3	25.3
Normal.....	208	131	20	57	100.0	63.0	9.6	27.4
Enlarged.....	93	60	14	19	100.0	64.5	15.1	20.4
Slight.....	87	55	14	18	100.0	63.2	16.1	20.7
Marked.....	6	5		1	100.0	83.4		16.6

TABLE 2.—Numbers and percentages of individuals having no dental decay, slight, and marked dental decay among 1,341 white boys and 1,516 white girls in the Cincinnati public schools, according to ages of children and degrees of thyroid enlargement—Continued

Thyroid status	Dental condition							
	Girls							
	Numbers				Percentages			
	Total	Normal	Slight decay	Marked decay	Total	Normal	Slight decay	Marked decay
ALL AGES								
Total.....	1,576	1,057	187	332	100.0	67.1	11.8	21.1
Normal.....	649	433	73	143	100.0	66.8	11.2	22.0
Enlarged.....	927	624	114	189	100.0	67.3	12.3	20.4
Slight.....	794	520	101	164	100.0	66.6	12.7	20.7
Marked.....	133	95	13	25	100.0	71.4	9.8	18.8
9 AND 10 YEARS								
Total.....	95	60	10	25	100.0	63.2	10.5	26.3
Normal.....	57	36	8	13	100.0	63.2	14.0	22.8
Enlarged.....	38	24	2	12	100.0	63.2	5.3	31.5
Slight.....	35	23	1	11	100.0	65.7	2.8	31.5
Marked.....	3	1	1	1	100.0	33.3	33.3	33.3
11 AND 12 YEARS								
Total.....	285	271	48	66	100.0	70.4	12.5	17.1
Normal.....	166	116	19	31	100.0	69.9	11.4	18.7
Enlarged.....	219	155	29	35	100.0	70.8	13.2	16.0
Slight.....	205	144	28	33	100.0	70.2	13.7	16.1
Marked.....	14	11	1	2	100.0	78.6	7.1	14.3
13 AND 14 YEARS								
Total.....	537	394	68	125	100.0	67.1	11.0	21.3
Normal.....	241	158	28	55	100.0	65.5	11.6	22.9
Enlarged.....	296	236	40	70	100.0	68.2	11.6	20.2
Slight.....	290	201	35	60	100.0	67.9	11.8	20.3
Marked.....	50	35	5	10	100.0	70.0	10.0	20.0
15 YEARS AND OVER								
Total.....	590	332	61	116	100.0	65.2	12.0	22.8
Normal.....	185	123	18	44	100.0	66.4	6.8	26.8
Enlarged.....	405	209	43	72	100.0	61.6	13.2	25.2
Slight.....	258	161	37	60	100.0	62.4	14.3	23.3
Marked.....	98	48	6	12	100.0	72.8	9.1	18.1

TABLE 3.—Numbers and percentages of certain tonsillar conditions among 1,341 white boys and 1,576 white girls in the Cincinnati public schools, according to age and degree of thyroid enlargement

## BOYS

Thyroid status	Number of tonsils					Percentage of tonsils				
	Total	Normal	Removed	Enlarged	Cryptic	Total	Normal	Removed	Enlarged	Chronic
Total.....	1,341	202	474	558	107	100.0	15.1	35.3	41.6	8.0
Normal.....	826	107	360	352	67	100.0	12.9	36.4	42.6	8.1
Enlarged.....	515	95	174	206	40	100.0	18.4	33.8	40.0	7.8
Slight.....	497	90	172	195	40	100.0	18.0	34.6	39.3	8.1
Marked.....	18	5	2	11	0	100.0	27.8	11.1	61.1	—

## ALL AGES

Total.....	1,341	202	474	558	107	100.0	15.1	35.3	41.6	8.0
Normal.....	826	107	360	352	67	100.0	12.9	36.4	42.6	8.1
Enlarged.....	515	95	174	206	40	100.0	18.4	33.8	40.0	7.8
Slight.....	497	90	172	195	40	100.0	18.0	34.6	39.3	8.1
Marked.....	18	5	2	11	0	100.0	27.8	11.1	61.1	—

## 9 AND 10 YEARS

Total.....	90	12	46	27	5	100.0	13.3	51.2	30.0	5.5
Normal.....	53	6	31	14	2	100.0	11.3	58.5	26.4	3.8
Enlarged.....	37	6	15	13	3	100.0	16.2	40.6	35.1	8.1
Slight.....	37	6	15	13	3	100.0	16.2	40.6	35.1	8.1
Marked.....	—	—	—	—	—	—	—	—	—	—

## 11 AND 12 YEARS

Total.....	372	55	140	143	34	100.0	14.8	37.6	38.5	0.1
Normal.....	221	25	84	92	20	100.0	11.3	38.0	41.6	0.0
Enlarged.....	151	30	56	51	14	100.0	19.9	37.1	33.8	9.2
Slight.....	149	29	56	50	14	100.0	19.5	37.6	33.5	9.4
Marked.....	2	1	—	1	—	100.0	50.0	—	50.0	—

## 13 AND 14 YEARS

Total.....	578	81	183	273	41	100.0	14.0	31.8	47.1	7.1
Normal.....	344	44	110	162	28	100.0	12.8	32.0	47.1	8.1
Enlarged.....	234	37	73	111	13	100.0	15.8	31.2	47.4	5.6
Slight.....	225	35	71	106	13	100.0	15.6	31.6	47.1	5.7
Marked.....	9	2	2	5	—	100.0	22.2	22.2	55.6	—

## 15 YEARS AND OVER

Total.....	301	54	105	115	27	100.0	17.9	34.9	38.2	0.0
Normal.....	204	32	75	84	17	100.0	15.4	36.0	40.4	8.3
Enlarged.....	93	22	30	31	10	100.0	23.7	32.3	39.3	10.7
Slight.....	86	20	30	26	10	100.0	23.3	34.9	39.2	11.6
Marked.....	7	2	—	5	—	100.0	28.6	—	71.4	—



TABLE 3.—Numbers and percentages of certain tonsillar conditions among 1,341 white boys and 1,576 white girls in the Cincinnati public schools, according to age and degree of thyroid enlargement—Continued

## GIRLS

Thyroid status	Number of tonsils					Percentage of tonsils				
	Total	Normal	Removed	Enlarged	Cryptic	Total	Normal	Removed	Enlarged	Cryptic
ALL AGES										
Total.....	1,576	273	477	697	129	100.0	17.3	30.2	44.3	8.2
Normal.....	649	60	205	307	47	100.0	13.9	31.6	47.3	7.2
Enlarged.....	927	183	272	390	82	100.0	19.7	29.3	42.1	8.9
Slight.....	794	146	210	337	71	100.0	18.4	30.2	42.4	9.0
Marked.....	133	37	32	53	11	100.0	27.8	24.0	39.9	8.3
9 AND 10 YEARS										
Total.....	95	13	33	44	5	100.0	13.7	34.8	46.3	5.2
Normal.....	57	8	24	24	1	100.0	14.0	42.1	42.1	1.7
Enlarged.....	38	5	9	20	4	100.0	13.2	23.7	52.6	10.5
Slight.....	35	5	9	17	4	100.0	14.3	25.7	48.6	11.4
Marked.....	3	-----	-----	3	-----	100.0	-----	-----	100.0	-----
11 AND 12 YEARS										
Total.....	385	56	128	168	33	100.0	14.6	33.3	43.6	8.5
Normal.....	166	17	56	75	18	100.0	10.2	33.8	45.2	10.8
Enlarged.....	219	39	72	93	15	100.0	17.8	32.0	42.5	6.8
Slight.....	205	33	71	87	14	100.0	16.1	34.7	42.4	6.8
Marked.....	14	6	1	6	1	100.0	42.9	7.1	42.8	7.1
13 AND 14 YEARS										
Total.....	587	109	174	261	43	100.0	18.6	29.6	44.5	7.5
Normal.....	241	32	79	117	13	100.0	13.3	32.8	48.5	5.4
Enlarged.....	346	77	95	144	30	100.0	22.3	27.5	41.6	8.6
Slight.....	296	63	84	124	25	100.0	21.3	28.4	41.9	8.4
Marked.....	50	14	11	20	5	100.0	28.0	22.0	40.0	10.0
15 YEARS AND OVER										
Total.....	509	95	142	225	47	100.0	18.7	27.9	44.2	9.2
Normal.....	185	33	46	92	14	100.0	17.9	24.9	49.7	7.5
Enlarged.....	324	62	96	133	33	100.0	19.1	29.7	41.0	10.2
Slight.....	258	45	76	109	28	100.0	17.5	29.5	42.2	10.8
Marked.....	66	17	20	24	5	100.0	25.8	30.3	36.4	7.5

## COURT DECISIONS RELATING TO PUBLIC HEALTH

*Legislature has power to change tuberculosis hospital district.*—(Massachusetts Supreme Judicial Court; *Essex County v. City of Newburyport*, 150 N. E. 234; decided January 7, 1926.) By a 1916 law, Essex County, in common with other counties, was required to provide adequate hospital care for certain tuberculous persons. The county constructed a hospital and the expense of same was assessed upon cities and towns in the county. Certain cities, not including Newburyport, were exempted from all liability to contribute to the county hospital. By a law passed in 1917, the city of

Newburyport was also exempted from such liability. In 1924 a statute was enacted which provided that all the cities and towns in Essex County should constitute the Essex County tuberculosis hospital district, and the exemption from liability to contribute to the county hospital, formerly enjoyed by certain cities, including Newburyport, was expressly repealed. In an action by Essex County to recover the assessment required to be paid by the city of Newburyport to the county as specified by the 1924 statute, the supreme court held that the legislature could enact a law again including the defendant city in the tuberculosis hospital district and that the particular law in question was constitutional. A portion of the court's opinion follows:

The original unit established in the northeastern part of the Commonwealth for the administration of justice, the support of jails and houses of correction, and the registration of deeds and the transaction of other kindred public affairs was the county of Essex. When the legislature came to deal with the problem of proper provision for patients suffering from tuberculosis in Essex County in 1916 four cities were omitted from the district required to contribute for the cost of the hospital. It seems plain that at that time the whole county might have been made a unit for that purpose by the legislature and those four cities as well as all other cities and towns of the county required to contribute to that cost. The omitted cities did not have the same right to share in the benefits of the hospital as did those within the district. St. 1916, c. 286, now G. L. c. 111, sec. 88. By Sp. St. 1917, c. 107, in addition to the other four cities the defendant was exempted from the district. That that statute did not constitute a contract between the defendant and the Commonwealth is settled by *Boston, Pet'r*, 221 Mass. 468, 109 N. E. 389; *Chelsea v. City of Boston*, 245 U. S. 626, 38 S. Ct. 10, 62 L. Ed. 517. There is no sound constitutional ground for holding that the legislature could not do in 1924 with reference to the hospital district in Essex County that which it plainly had the right to do in 1916. Sp. St. 1917, c. 107, whereby the defendant was exempted from the provisions of St. 1916, was subject to change, modification, or repeal like any other statute. By St. 1924, c. 443, the defendant was reincorporated into the hospital district with whatever privileges and rights flow therefrom.

We are unable to perceive anything arbitrary, despotic, or constituting a flagrant misuse of legislative power. Such characteristics would render legislation contrary to constitutional guaranties. But they do not exist in St. 1924, c. 443.

*Membership on city school committee and position of school medical inspector held incompatible.*—(Massachusetts Supreme Judicial Court; *Barrett v. City of Medford*, 150 N. E. 159; decided January 8, 1926.) The plaintiff, while a member of the school committee of the city of Medford, was appointed by the said committee as medical inspector for the schools. He took no part officially as a member of the school committee in his appointment as medical inspector. After the plaintiff had served for several years as medical inspector, and at the same time as a member of the school committee, the mayor refused to approve the pay-roll item covering plaintiff's salary as medical inspector. The plaintiff continued to act as medical inspector for a period of several months without salary and then brought an action

against the city to recover for the services rendered as such inspector. While there was no statute, ordinance, or rule directly forbidding the appointment of a school-committee member as medical inspector, yet the supreme court decided that the two positions were inconsistent and denied recovery. The following is a portion of the opinion:

Having in mind that a member of either branch of a city council or of a municipal board of a city is not permitted to be personally interested directly or indirectly in a contract made by the city council, or other branch thereof, or by such board, or by authority derived therefrom, in which the city is an interested party, G. L. c. 268, sec. 9; that no "member of the city council shall, during the term for which he was chosen \* \* \* be eligible to any office the salary of which is payable by the city," G. L. c. 39, sec. 8; that a board of health of a city, who are authorized to appoint a quarantine physician under an ordinance giving him a compensation fixed by the city council, may not appoint one of their own members such quarantine physician, *Gaw v. Ashley*, 195 Mass. 173, 80 N. E. 790, 122 Am. St. Rep. 229; that no member of a school committee shall be eligible to serve as teacher or superintendent in the public schools, St. 1904, c. 173; we think a school committee, in the absence of a statute permitting it, can not elect one of themselves to the salaried office of school physician. The duties he is to perform as physician are incompatible with the supervisory duties which as a member of the committee he should exercise over the incumbent of the office of school physician. Consistently he can not be master and servant.

Again, under the rules of the committee and G. L. c. 71, sec. 59, the superintendent of schools, under the direction of the school committee, is the "executive officer of the committee" who, among other services, has the duty to nominate for election "all principals, supervisors, teachers, janitors \* \* \* and other school employees, make recommendations to the school committee regarding their duties, salaries, and dismissal." It is to be further observed that the superintendent of schools may hold his office by the deciding vote of the member whom he may subsequently nominate for school physician, with an accompanying recommendation of a stated salary for the incumbent of that office.

## Examinations for Entrance into the Regular Corps of the Public Health Service

Examinations of candidates for entrance into the Regular Corps of the United States Public Health Service will be held at the following-named places on the dates specified:

Washington, D. C., May 3, 1926.

Chicago, Ill., May 3, 1926.

New Orleans, La., May 3, 1926.

San Francisco, Calif., May 3, 1926.

Candidates must be not less than 23 nor more than 32 years of age, and they must have been graduated in medicine at some reputable medical college, and have had one year's hospital experience or two years' professional practice. They must pass satisfactorily, oral, written, and clinical tests before a board of medical officers and undergo a physical examination.

Successful candidates will be recommended for appointment by the President, with the advice and consent of the Senate.

Requests for information or permission to take this examination should be addressed to the Surgeon General, United States Public Health Service, Washington, D. C.

# PREVALENCE OF DISEASE

*No health department, State or local, can effectively prevent or control disease without knowledge of when, where, and under what conditions cases are occurring*

## UNITED STATES

### CURRENT WEEKLY STATE REPORTS

These reports are preliminary, and the figures are subject to change when later returns are received by the State health officers

#### Reports for Week Ended March 20, 1926

ALABAMA		CALIFORNIA	
	Cases		Cases
Cerebrospinal meningitis.....	1	Cerebrospinal meningitis:	
Chicken pox.....	70	Los Angeles.....	1
Dengue.....	1	Ontario.....	1
Diphtheria.....	17	San Francisco.....	2
Influenza.....	1,007	Chicken pox.....	394
Lethargic encephalitis.....	1	Diphtheria.....	132
Malaria.....	7	Influenza.....	73
Measles.....	132	Lethargic encephalitis:	
Mumps.....	30	San Jose.....	1
Pellagra.....	6	Tulare County.....	1
Pneumonia.....	195	Measles.....	149
Scarlet fever.....	19	Mumps.....	334
Smallpox.....	21	Poliomyelitis:	
Tuberculosis.....	158	Long Beach.....	1
Typhoid fever.....	7	Los Angeles.....	2
Whooping cough.....	29	Los Angeles County.....	1
		Oakland.....	1
		San Jose.....	1
		Scarlet fever.....	152
		Smallpox:	
		Los Angeles.....	37
		Los Angeles County.....	13
		Oakland.....	20
		Scattering.....	28
		Typhoid fever.....	10
		Whooping cough.....	77
ARIZONA		COLORADO	
Chicken pox.....	3	Chicken pox.....	33
Diphtheria.....	2	Diphtheria.....	41
Influenza.....	226	German measles.....	2
Leprosy.....	1	Impetigo contagiosa.....	1
Mumps.....	3	Influenza.....	5
Pneumonia.....	1	Measles.....	5
Scarlet fever.....	6	Mumps.....	5
Trachoma.....	1	Pneumonia.....	5
Tuberculosis.....	27	Poliomyelitis.....	1
Whooping cough.....	1	Scarlet fever.....	51
		Smallpox.....	1
		Tuberculosis.....	16
		Typhoid fever.....	10
		Vincent's angina.....	2
		Whooping cough.....	65
ARKANSAS			
Chicken pox.....	29		
Dengue.....	1		
Diphtheria.....	3		
Hookworm disease.....	1		
Influenza.....	1,248		
Malaria.....	64		
Measles.....	54		
Mumps.....	26		
Pellagra.....	7		
Scarlet fever.....	12		
Smallpox.....	3		
Trachoma.....	7		
Tuberculosis.....	46		
Whooping cough.....	35		

CONNECTICUT		IDAHO	
	Cases		Cases
Cerebrospinal meningitis.....	1	Cerebrospinal meningitis.....	
Chicken pox.....	56	Kellogg.....	2
Diphtheria.....	33	Post Falls.....	5
German measles.....	9	Weippe.....	1
Influenza.....	171	Chicken pox.....	1
Lethargic encephalitis.....	1	Diphtheria.....	3
Measles.....	1,171	Influenza.....	5
Mumps.....	7	Measles.....	8
Pneumonia (broncho).....	97	Mumps.....	18
Pneumonia (lobar).....	120	Pneumonia (broncho).....	4
Scarlet fever.....	82	Scarlet fever.....	35
Septic sore throat.....	2	Smallpox.....	
Tuberculosis (all forms).....	28	Emmett.....	27
Typhoid fever.....	1	Scattering.....	12
Whooping cough.....	113	Typhoid fever.....	2
		Whooping cough.....	9
DELAWARE		ILLINOIS	
Chicken pox.....	2	Cerebrospinal meningitis—Tazewell County.....	1
Influenza.....	4	Diphtheria.....	85
Measles.....	92	Influenza.....	692
Pneumonia.....	4	Lethargic encephalitis—Lee County.....	1
Scarlet fever.....	8	Measles.....	977
Tuberculosis.....	2	Pneumonia.....	984
Whooping cough.....	4	Scarlet fever.....	468
		Smallpox.....	31
DISTRICT OF COLUMBIA		Tuberculosis.....	264
Chicken pox.....	37	Typhoid fever.....	9
Diphtheria.....	9	Whooping cough.....	180
Measles.....	459		
Pneumonia.....	38	INDIANA	
Scarlet fever.....	19	Cerebrospinal meningitis.....	1
Tuberculosis.....	33	Chicken pox.....	105
Whooping cough.....	30	Diphtheria.....	24
		Influenza.....	517
FLORIDA		Measles.....	1,785
Cerebrospinal meningitis.....	1	Mumps.....	3
Chicken pox.....	57	Pneumonia.....	55
Diphtheria.....	10	Poliomyelitis.....	1
German measles.....	1	Scarlet fever.....	246
Influenza.....	29	Smallpox.....	166
Malaria.....	2	Tuberculosis.....	50
Measles.....	24	Whooping cough.....	150
Mumps.....	26		
Pneumonia.....	8	KANSAS	
Scarlet fever.....	5	Chicken pox.....	80
Smallpox.....	129	Diphtheria.....	11
Tuberculosis.....	7	German measles.....	7
Typhoid fever.....	2	Influenza.....	54
Typhus fever.....	1	Lethargic encephalitis.....	1
Whooping cough.....	18	Measles.....	501
		Mumps.....	37
GEORGIA		Pellagra.....	1
Anthrax.....	1	Pneumonia.....	63
Cerebrospinal meningitis.....	1	Scarlet fever.....	95
Chicken pox.....	60	Septic sore throat.....	1
Diphtheria.....	7	Smallpox.....	21
Hookworm disease.....	1	Tetanus.....	1
Influenza.....	757	Tuberculosis.....	49
Malaria.....	4	Typhoid fever.....	3
Measles.....	143	Whooping cough.....	173
Mumps.....	43		
Pneumonia.....	86	LOUISIANA	
Scarlet fever.....	7	Diphtheria.....	12
Septic sore throat.....	8	Influenza.....	472
Smallpox.....	32	Lethargic encephalitis.....	1
Tuberculosis.....	32		
Whooping cough.....	13		

LOUISIANA—continued		MINNESOTA	
	Cases		Cases
Pneumonia.....	56	Chicken pox.....	141
Scarlet fever.....	10	Diphtheria.....	28
Smallpox.....	88	Influenza.....	3
Tuberculosis.....	31	Measles.....	289
Typhoid fever.....	8	Pneumonia.....	2
MAINE		Polioimyelitis.....	1
Cerebrospinal meningitis.....	1	Scarlet fever.....	335
Chicken pox.....	43	Smallpox.....	5
Diphtheria.....	4	Tuberculosis.....	52
German measles.....	16	Typhoid fever.....	1
Influenza.....	125	Whooping cough.....	81
Measles.....	283	MISSISSIPPI	
Mumps.....	47	Diphtheria.....	4
Pneumonia.....	34	Influenza.....	952
Scarlet fever.....	45	Scarlet fever.....	5
Tetanus.....	1	Smallpox.....	10
Tuberculosis.....	9	Typhoid fever.....	3
Vincent's angina.....	2	MISSOURI	
Whooping cough.....	35	Chicken pox.....	85
MARYLAND <sup>1</sup>		Diphtheria.....	59
Chicken pox.....	82	Influenza.....	58
Diphtheria.....	25	Measles.....	651
Dysentery.....	1	Mumps.....	71
German measles.....	2	Pneumonia.....	19
Influenza.....	445	Rabies (in animals).....	5
Measles.....	1,053	Scarlet fever.....	309
Mumps.....	150	Smallpox.....	14
Ophthalmia neonatorum.....	1	Trachoma.....	2
Pneumonia (broncho).....	99	Tuberculosis.....	30
Pneumonia (lobar).....	71	Typhoid fever.....	3
Scarlet fever.....	50	Whooping cough.....	59
Septic sore throat.....	3	MONTANA	
Tuberculosis.....	43	Cerebrospinal meningitis.....	1
Typhoid fever.....	8	Chicken pox.....	25
Whooping cough.....	49	Diphtheria.....	2
MASSACHUSETTS		German measles.....	43
Anthrax.....	1	Influenza.....	134
Cerebrospinal meningitis.....	2	Measles.....	20
Chicken pox.....	151	Mumps.....	22
Conjunctivitis (suppurative).....	4	Scarlet fever.....	60
Diphtheria.....	66	Smallpox.....	8
German measles.....	246	Tuberculosis.....	2
Influenza.....	272	Whooping cough.....	6
Lethargic encephalitis.....	4	NEBRASKA	
Measles.....	1,251	Chicken pox.....	19
Mumps.....	95	Diphtheria.....	4
Ophthalmia neonatorum.....	42	Influenza.....	2
Pneumonia (lobar).....	237	Measles.....	20
Polioimyelitis.....	1	Mumps.....	9
Scarlet fever.....	281	Pneumonia.....	4
Septic sore throat.....	1	Scarlet fever.....	46
Trachoma.....	1	Smallpox.....	18
Tuberculosis (pulmonary).....	109	Tuberculosis.....	12
Tuberculosis (other forms).....	24	Whooping cough.....	16
Typhoid fever.....	5	NEW JERSEY	
Whooping cough.....	520	Cerebrospinal meningitis.....	4
MICHIGAN		Chicken pox.....	173
Diphtheria.....	126	Diphtheria.....	66
Measles.....	1,698	Influenza.....	151
Pneumonia.....	364	Malaria.....	1
Scarlet fever.....	385	Measles—Tranton.....	182
Smallpox.....	11	Pneumonia.....	327
Tuberculosis.....	60	Polioimyelitis.....	3
Typhoid fever.....	7		
Whooping cough.....	264		

<sup>1</sup>Week ended Friday.

## NEW JERSEY—continued

	Cases
Scarlet fever.....	187
Typhoid fever.....	4
Whooping cough.....	79

## NEW MEXICO

Chicken pox.....	9
Conjunctivitis.....	11
Diphtheria.....	3
Influenza.....	22
Measles.....	1
Mumps.....	14
Pneumonia.....	32
Rabies (in animals).....	4
Scarlet fever.....	2
Septic sore throat.....	3
Smallpox.....	1
Tuberculosis.....	49
Whooping cough.....	19

## NEW YORK

(Exclusive of New York City)

Chicken pox.....	217
Diphtheria.....	77
German measles.....	282
Influenza.....	3,352
Lethargic encephalitis.....	4
Measles.....	1,288
Mumps.....	183
Pneumonia.....	831
Pollomyelitis.....	1
Scarlet fever.....	294
Septic sore throat.....	5
Smallpox.....	1
Tetanus.....	1
Typhoid fever.....	14
Vincent's angina.....	13
Whooping cough.....	477

## NORTH CAROLINA

Chicken pox.....	163
Diphtheria.....	13
German measles.....	164
Measles.....	179
Scarlet fever.....	24
Septic sore throat.....	1
Smallpox.....	10
Typhoid fever.....	2
Whooping cough.....	81

## OKLAHOMA

(Exclusive of Tulsa and Oklahoma City)

Chicken pox.....	32
Diphtheria.....	11
Influenza.....	2,511
Malaria.....	9
Measles.....	24
Mumps.....	4
Pellagra.....	1
Pneumonia.....	207
Scarlet fever.....	28
Smallpox.....	36
Typhoid fever.....	2
Whooping cough.....	61

† Deaths

## OREGON

	Cases
Cerebrospinal meningitis.....	1
Chicken pox.....	48
Diphtheria.....	9
Influenza.....	136
Measles.....	37
Mumps.....	57
Pneumonia.....	210
Rocky Mountain spotted fever.....	1
Scarlet fever.....	52
Smallpox:	
Linn County.....	17
Scattering.....	21
Tuberculosis.....	5
Whooping cough.....	44

## PENNSYLVANIA

Anthrax—Philadelphia.....	1
Cerebrospinal meningitis—Minersville.....	1
Chicken pox.....	500
Diphtheria.....	178
German measles.....	45
Impetigo contagiosa.....	7
Lethargic encephalitis:	
Bethlehem.....	1
Philadelphia.....	1
Measles.....	3,480
Mumps.....	145
Ophthalmia neonatorum—Philadelphia.....	3
Pneumonia.....	153
Scabies.....	5
Scarlet fever.....	540
Tetanus—Woodlawn.....	1
Tuberculosis.....	82
Typhoid fever.....	22
Whooping cough.....	376

## RHODE ISLAND

Chicken pox.....	2
Diphtheria.....	9
German measles.....	18
Influenza.....	127
Measles.....	165
Mumps.....	7
Scarlet fever.....	7
Septic sore throat.....	1
Tuberculosis.....	3
Whooping cough.....	4

## SOUTH DAKOTA

Chicken pox.....	10
Diphtheria.....	1
Measles.....	15
Mumps.....	101
Pneumonia.....	6
Scarlet fever.....	41
Smallpox.....	3
Whooping cough.....	2

## TENNESSEE

Chicken pox.....	46
Diphtheria.....	8
Influenza.....	672
Malaria.....	3

TENNESSEE—continued		WASHINGTON—continued	
	Cases		Cases
Measles.....	240	Pneumonia.....	1
Mumps.....	47	Scarlet fever.....	73
Pellagra.....	2	Smallpox:	
Pneumonia.....	106	Chelan County.....	11
Scarlet fever.....	25	Seattle.....	11
Smallpox.....	13	Tacoma.....	13
Trachoma.....	2	Scatterling.....	42
Tuberculosis.....	37	Tuberculosis.....	16
Typhoid fever.....	4	Typhoid fever.....	2
Whooping cough.....	10	Whooping cough.....	57
TEXAS		WEST VIRGINIA	
Chicken pox.....	58	Diphtheria.....	5
Diphtheria.....	38	Measles.....	350
Influenza.....	636	Scarlet fever.....	11
Measles.....	14	Typhoid fever.....	2
Mumps.....	64	WISCONSIN	
Pellagra.....	2	Milwaukee:	
Pneumonia.....	57	Chicken pox.....	101
Scarlet fever.....	35	Diphtheria.....	18
Smallpox.....	09	German measles.....	3
Tuberculosis.....	21	Influenza.....	7
Typhoid fever.....	1	Measles.....	114
Whooping cough.....	50	Mumps.....	49
UTAH		Pneumonia.....	26
Cerebrospinal meningitis—Salt Lake City.....	1	Scarlet fever.....	22
Chicken pox.....	15	Tuberculosis.....	25
Diphtheria.....	2	Typhoid fever.....	1
Influenza.....	13	Whooping cough.....	105
Mumps.....	31	Scatterling:	
Pneumonia.....	1	Cerebrospinal meningitis.....	1
Scarlet fever.....	5	Chicken pox.....	155
Smallpox.....	2	Diphtheria.....	20
Whooping cough.....	64	German measles.....	23
VERMONT		Influenza.....	189
Chicken pox.....	9	Lethargic encephalitis.....	1
Diphtheria.....	1	Measles.....	516
Measles.....	19	Mumps.....	165
Mumps.....	33	Pneumonia.....	24
Scarlet fever.....	8	Poliomyelitis.....	1
Whooping cough.....	50	Scarlet fever.....	151
WASHINGTON		Smallpox.....	13
Cerebrospinal meningitis:		Tuberculosis.....	19
Seattle.....	2	Typhoid fever.....	4
Spokane.....	14	Whooping cough.....	145
Tacoma.....	1	WYOMING	
Chicken pox.....	86	Chicken pox.....	11
Diphtheria.....	17	Diphtheria.....	5
German measles.....	84	German measles.....	4
Influenza.....	22	Influenza.....	16
Measles.....	42	Measles.....	3
Mumps.....	108	Mumps.....	2
		Pneumonia.....	3
		Scarlet fever.....	21
		Whooping cough.....	6

## Reports for Week Ended March 13, 1926

DISTRICT OF COLUMBIA		NORTH DAKOTA	
	Cases		Cases
Chicken pox.....	22	Chicken pox.....	19
Diphtheria.....	14	Diphtheria.....	9
Influenza.....	1	German measles.....	174
Lethargic encephalitis.....	1	Influenza.....	117
Measles.....	212	Measles.....	51
Pellagra.....	1	Mumps.....	19
Pneumonia.....	70	Pneumonia.....	33
Scarlet fever.....	17	Scarlet fever.....	124
Smallpox.....	1	Smallpox.....	4
Tuberculosis.....	36	Whooping cough.....	17
Typhoid fever.....	1		
Whooping cough.....	22		



## SUMMARY OF MONTHLY REPORTS FROM STATES

The following summary of monthly State reports is published weekly and covers only those States from which reports are received during the current week:

State	Cerebro-spinal meningitis	Diphtheria	Influenza	Malaria	Measles	Pellagra	Poliomyelitis	Scarlet fever	Small-pox	Typhoid fever
<i>January, 1926</i>										
Hawaii-----	1	30	20	-----	23	-----	0	2	0	5
<i>February, 1926</i>										
Michigan-----	-----	381	28	0	7,807	-----	0	1,503	32	20
New Jersey-----	10	341	183	1	8,578	-----	0	813	0	17
North Dakota-----	-----	10	16	-----	88	-----	9	470	34	5
Tennessee-----	3	63	974	14	1,565	18	3	160	94	29

Number of Cases of Certain Communicable Diseases Reported for the Month of January, 1926, by State Health Officers

State	Chick-on pox	Diphtheria	Measles	Mumps	Scarlet fever	Small-pox	Tuberculosis	Typhoid fever	Whooping cough
Alabama-----	415	118	78	425	98	157	167	50	113
Arizona-----	52	29	4	27	04	1	55	5	28
Arkansas-----	77	24	3	23	31	13	23	19	32
California-----	1,231	437	218	1,023	729	442	684	50	351
Colorado-----	284	106	40	32	143	1	159	8	214
Connecticut-----	601	186	2,600	58	338	0	151	12	332
Delaware-----	23	24	180	3	34	0	34	1	5
District of Columbia-----	128	132	99	-----	114	0	81	1	34
Florida-----	142	72	20	107	42	322	37	32	20
Georgia-----	89	83	171	134	59	74	106	49	55
Idaho-----	-----	23	-----	-----	63	0	-----	2	-----
Illinois-----	1,945	486	1,825	378	1,847	177	954	111	739
Indiana-----	397	189	1,297	11	975	526	195	28	309
Iowa-----	220	86	642	116	295	158	18	( <sup>1</sup> )	86
Kansas-----	594	101	250	77	411	32	194	11	322
Kentucky <sup>2</sup> -----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Louisiana-----	53	106	4	7	46	181	<sup>3</sup> 178	78	26
Maine-----	135	27	51	109	165	0	26	11	123
Maryland-----	715	131	4,380	595	205	0	344	21	255
Massachusetts-----	1,145	391	6,573	343	1,289	0	644	27	1,683
Michigan-----	956	400	4,834	97	1,452	89	329	39	1,032
Minnesota-----	749	282	134	-----	1,434	28	201	12	176
Mississippi-----	728	94	1,398	956	65	91	295	53	925
Missouri-----	448	376	229	282	1,030	48	228	18	139
Montana-----	144	27	31	250	147	46	44	2	76
Nebraska <sup>4</sup> -----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Nevada <sup>1</sup> -----	-----	-----	-----	-----	-----	-----	-----	-----	-----
New Hampshire <sup>1</sup> -----	-----	-----	-----	-----	-----	-----	-----	-----	-----
New Jersey-----	1,749	441	5,217	-----	927	2	487	38	270
New Mexico <sup>2</sup> -----	-----	-----	-----	-----	-----	-----	-----	-----	-----
New York-----	2,958	1,040	9,335	726	1,770	5	1,425	185	1,737
North Carolina-----	759	206	383	249	156	-----	-----	22	466
North Dakota-----	148	28	60	208	383	27	4	8	64
Ohio-----	1,492	513	11,997	158	1,655	463	523	57	1,093
Oklahoma <sup>2</sup> -----	168	128	40	29	155	73	74	60	196
Oregon-----	137	109	65	205	224	313	54	22	153
Pennsylvania <sup>4</sup> -----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Rhode Island-----	54	69	2,214	12	52	0	38	2	67
South Carolina-----	38	136	1	9	46	52	162	50	341
South Dakota-----	97	33	20	260	442	35	3	4	15
Tennessee-----	253	70	838	42	151	49	167	26	80
Texas <sup>2</sup> -----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Utah <sup>4</sup> -----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Vermont-----	234	19	43	81	86	0	<sup>3</sup> 15	3	211
Virginia-----	847	228	933	-----	396	92	<sup>3</sup> 145	22	664
Washington-----	483	70	68	588	433	426	113	9	255
West Virginia-----	175	121	461	-----	242	31	35	39	192
Wisconsin-----	1,333	218	630	854	768	70	124	18	599
Wyoming-----	55	14	7	22	75	7	1	0	53

<sup>1</sup> Reports not required by law.

<sup>2</sup> Reports received weekly.

<sup>3</sup> Pulmonary.

<sup>4</sup> Report not received at time of going to press.

<sup>5</sup> Reports received annually.

<sup>6</sup> Exclusive of Oklahoma City and Tulsa.

## Case Rates per 1,000 Population (Annual Basis) for the Month of January, 1926

State	Chick- en pox	Diph- theria	Meas- les	Mumps	Scar- let fever	Small- pox	Tuber- culosis	Ty- phoid fever	Whoop- ing cough
Alabama.....	1.96	0.56	0.37	2.01	0.46	0.74	0.79	0.24	0.53
Arizona.....	1.45	0.81	0.11	.75	1.79	.03	1.75	.14	.78
Arkansas.....	.48	.15	.02	.14	.20	.08	.14	.12	.20
California.....	3.51	1.25	.62	2.92	2.08	1.26	1.95	.14	1.00
Colorado.....	3.23	1.21	.46	.36	1.63	.01	1.81	.09	2.44
Connecticut.....	4.54	1.41	19.64	.44	2.55	.00	1.14	.09	2.51
Delaware.....	1.14	1.19	8.95	.15	1.69	.00	1.60	.05	.25
District of Columbia.....	2.96	3.05	2.29	-----	2.64	.00	1.87	.02	.79
Florida.....	1.50	.76	.21	1.13	.44	3.41	.39	.34	.21
Georgia.....	.34	.32	.65	.51	.22	.28	.40	.19	.21
Idaho.....	-----	.54	-----	-----	1.47	.00	-----	.05	-----
Illinois.....	3.25	.81	3.05	.63	3.08	.30	1.59	.19	1.23
Indiana.....	1.52	.72	4.95	.04	3.72	2.01	.74	.11	1.18
Iowa.....	1.03	.40	2.99	.54	1.38	.74	.68	(1)	.40
Kansas.....	3.84	.65	1.62	.50	2.66	.21	1.25	.07	2.08
Kentucky 2	-----	-----	-----	-----	-----	-----	-----	-----	-----
Louisiana.....	.33	.66	.02	.04	.29	1.13	1.11	.49	.16
Maine.....	2.02	.40	.70	1.63	2.47	.09	.39	.16	1.84
Maryland.....	5.42	.99	33.21	4.51	1.55	.00	2.61	.16	1.93
Massachusetts.....	3.23	1.10	18.52	.97	3.63	.00	1.81	.08	4.74
Michigan.....	2.65	1.11	13.41	.27	4.03	.25	.91	.11	2.86
Minnesota.....	3.40	1.28	.61	-----	6.50	.13	.91	.05	.80
Mississippi.....	4.79	.62	9.10	6.29	.43	.60	1.94	.35	6.08
Missouri.....	1.52	1.27	.78	.95	3.49	.16	.77	.06	.47
Montana.....	2.55	.48	.55	4.43	2.60	.81	.78	.04	1.35
Nebraska 4	-----	-----	-----	-----	-----	-----	-----	-----	-----
Nevada 5	-----	-----	-----	-----	-----	-----	-----	-----	-----
New Hampshire 6	-----	-----	-----	-----	-----	-----	-----	-----	-----
New Jersey.....	5.77	1.45	17.21	-----	3.06	.01	1.51	.13	.92
New Mexico 2	-----	-----	-----	-----	-----	-----	-----	-----	-----
New York.....	3.10	1.09	9.78	.76	1.85	.01	1.49	.19	1.82
North Carolina.....	3.19	.87	1.61	-----	1.05	.66	-----	.09	1.96
North Dakota.....	2.51	.43	1.02	3.53	6.50	.46	.07	.14	1.69
Ohio.....	2.73	.94	21.99	.29	3.03	.85	.96	.10	2.60
Oklahoma 6	.87	.66	.21	.15	.80	.38	.38	.31	1.01
Oregon.....	1.88	1.50	.60	2.82	3.08	4.30	.74	.30	2.10
Pennsylvania 4	-----	-----	-----	-----	-----	-----	-----	-----	-----
Rhode Island.....	.98	1.26	40.37	.22	.95	.00	.69	.04	1.22
South Carolina.....	.25	.89	.01	.06	.30	.34	1.06	.33	2.23
South Dakota.....	1.70	.58	.35	4.56	7.75	.01	.65	.07	.26
Tennessee.....	1.22	.54	4.04	.20	.73	.24	.81	.13	.39
Texas 2	-----	-----	-----	-----	-----	-----	-----	-----	-----
Utah 4	-----	-----	-----	-----	-----	-----	-----	-----	-----
Vermont.....	7.82	.63	1.44	2.71	2.87	.00	.60	.10	7.05
Virginia.....	4.03	1.08	4.44	-----	1.58	.44	.69	.10	3.16
Washington.....	3.79	.65	.52	4.61	3.40	3.34	.89	.07	2.00
West Virginia.....	1.27	.88	3.34	-----	1.75	.22	.25	.28	1.39
Wisconsin.....	5.54	.91	2.62	3.55	3.19	.29	.52	.07	2.49
Wyoming.....	2.85	.73	.36	1.14	3.89	.36	.65	.00	2.75

1 Reports not required by law.

2 Reports received weekly.

3 Pulmonary.

4 Report not received at time of going to press.

5 Reports received annually.

6 Exclusive of Oklahoma City and Tulsa.

## INFLUENZA AT SAULT STE. MARIE, MICH.

An epidemic of mild influenza was reported at Sault Ste. Marie, Mich., March 10, 1926.

## TYPHUS FEVER AT EL PASO, TEX.

Under date of March 10, 1926, three cases of typhus fever with one death were reported at El Paso, Tex. All of the patients had visited Mexico. The health authorities are taking precautions to prevent the spread of the disease.

### PLAGUE-ERADICATIVE MEASURES IN THE UNITED STATES

The following items were taken from the reports of plague-eradivative measures from Los Angeles, Calif.:

Week ended Mar. 6, 1926:

Number of rats trapped.....	2,364
Number of rats found to be plague infected.....	0
Number of squirrels examined.....	841
Number of squirrels found to be plague infected.....	0
Number of mice trapped.....	2,588
Number of mice found to be plague infected.....	0

Date of discovery of last plague-infected rodent, Nov. 6, 1925.

Date of last human case, Jan. 15, 1925.

### GENERAL CURRENT SUMMARY AND WEEKLY REPORTS FROM CITIES

*Diphtheria*.—For the week ended March 6, 1926, 37 States reported 1,245 cases of diphtheria. For the week ended March 7, 1925, the same States reported 1,478 cases of this disease. Ninety-nine cities, situated in all parts of the country and having an aggregate population of more than 29,500,000, reported 704 cases of diphtheria for the week ended March 6, 1926. Last year for the corresponding week they reported 882 cases. The estimated expectancy for these cities was 978 cases. The estimated expectancy is based on the experience of the last nine years, excluding epidemics.

*Measles*.—Thirty-four States reported 16,944 cases of measles for the week ended March 6, 1926, and 4,275 cases of this disease for the week ended March 7, 1925. Ninety-nine cities reported 10,294 cases of measles for the week this year, and 2,256 cases last year.

*Poliomyelitis*.—The health officers of 37 States reported 16 cases of poliomyelitis for the week ended March 6, 1926. The same States reported 17 cases for the week ended March 7, 1925.

*Scarlet fever*.—Scarlet fever was reported for the week as follows: Thirty-seven States—this year, 4,073 cases; last year, 4,478 cases; 99 cities—this year, 1,641 cases; last year, 2,019 cases; estimated expectancy, 1,200 cases.

*Smallpox*.—For the week ended March 6, 1926, 37 States reported 970 cases of smallpox. Last year for the corresponding week they reported 960 cases. Ninety-nine cities reported smallpox for the week as follows: 1926, 265 cases; 1925, 344 cases; estimated expectancy, 133 cases. Nine deaths from smallpox were reported by these cities for the week this year—8 at Los Angeles, Calif., and 1 at San Francisco, Calif.

*Typhoid fever*.—One hundred and eighty cases of typhoid fever were reported for the week ended March 6, 1926, by 36 States. For the corresponding week of 1925, the same States reported 215 cases of this disease. Ninety-nine cities reported 57 cases of typhoid

fever for the week this year and 57 cases for the corresponding week last year. The estimated expectancy for these cities was 43 cases.

*Influenza and pneumonia.*—Deaths from influenza and pneumonia were reported for the week by 92 cities, with a population of more than 28,800,000, as follows: 1926, 1,783 deaths; 1925, 1,220.

*City reports for week ended March 6, 1926*

The "estimated expectancy" given for diphtheria, poliomyelitis, scarlet fever, smallpox, and typhoid fever is the result of an attempt to ascertain from previous occurrence how many cases of the disease under consideration may be expected to occur during a certain week in the absence of epidemics. It is based on reports to the Public Health Service during the past nine years. It is in most instances the median number of cases reported in the corresponding week of the preceding years. When the reports include several epidemics or when for other reasons the median is unsatisfactory, the epidemic periods are excluded and the estimated expectancy is the mean number of cases reported for the week during nonepidemic years.

If reports have not been received for the full nine years, data are used for as many years as possible, but no year earlier than 1917 is included. In obtaining the estimated expectancy, the figures are smoothed when necessary to avoid abrupt deviations from the usual trend. For some of the diseases given in the table the available data were not sufficient to make it practicable to compute the estimated expectancy.

Division, State, and city	Population July 1, 1925, estimated	Chicken pox, cases reported	Diphtheria		Influenza		Measles, cases reported	Mumps, cases reported	Pneumonia, deaths reported
			Cases, estimated expectancy	Cases reported	Cases reported	Deaths reported			
NEW ENGLAND									
Maine:									
Portland.....	75,333	12	2	0	0	0	11	1	1
New Hampshire:									
Concord.....	22,546	0	0	0	0	0	3	0	2
Manchester.....	83,097	0	3	0	0	0	14	0	1
Vermont:									
Barre.....	10,008	0	1	0	0	0	0	0	0
Massachusetts:									
Boston.....	779,620	54	61	22	13	1	191	31	36
Fall River.....	128,993	4	4	4	0	0	21	4	4
Springfield.....	142,065	12	4	0	3	2	264	0	1
Worcester.....	190,757	2	4	1	0	0	11	3	4
Rhode Island:									
Pawtucket.....	69,760	2	1	2	0	0	125	0	3
Providence.....	267,918	0	11	5	0	1	288	0	7
Connecticut:									
Bridgeport.....	(?)	1	8	5	2	0	13	0	
Hartford.....	160,197	4	9	0	0	0	75	0	5
New Haven.....	178,927	26	3	1	2	1	33	2	7
MIDDLE ATLANTIC									
New York:									
Buffalo.....	538,016	19	14	6	3	1	10	1	11
New York.....	5,873,356	158	220	129	208	61	2,349	32	391
Rochester.....	816,786	16	8	10	126	8	30	1	26
Syracuse.....	182,003	27	6	2	4	1	63	46	6
New Jersey:									
Camden.....	128,642	9	4	5	3	4	42	0	22
Newark.....	452,513	49	17	10	36	0	572	7	23
Trenton.....	132,020	2	4	1	44	5	4	1	13
Pennsylvania:									
Philadelphia.....	1,979,364	102	83	52	35	54	570	15	210
Pittsburgh.....	631,563	34	22	7	-----	2	37	0	40
Reading.....	112,707	13	3	1	0	0	11	1	6
EAST NORTH CENTRAL									
Ohio:									
Cincinnati.....	409,333	11	10	4	1	5	6	0	9
Cleveland.....	936,485	37	29	27	2	0	798	1	36
Columbus.....	279,836	19	4	1	0	3	400	3	7
Toledo.....	287,380	51	6	4	0	3	85	0	5
Indiana:									
Fort Wayne.....	97,846	10	3	2	0	0	0	3	2
Indianapolis.....	358,519	33	8	4	0	0	1,250	2	22
South Bend.....	80,991	5	1	1	0	0	4	0	3
Terre Haute.....	71,071	5	1	0	0	1	7	0	1

No estimate made.

## City reports for week ended March 6, 1926—Continued

Division, State, and city	Population July 1, 1925, estimated	Chicken pox, cases reported	Diphtheria		Influenza		Measles, cases reported	Mumps, cases reported	Pneumonia, deaths reported
			Cases, estimated expectancy	Cases reported	Cases reported	Deaths reported			
EAST NORTH CENTRAL—continued									
Illinois:									
Chicago	2,995,239	132	105	65	58	7	153	10	127
Peoria	81,564	5	2	0	0	0	19	23	4
Springfield	63,923	15	1	1	3	1	7		
Michigan:									
Detroit	1,245,824	46	55	54	16	3	1,119	12	77
Flint	130,316	14	6	1	0	0	7	1	2
Grand Rapids	153,698	25	3	2	0	0	23	0	2
Wisconsin:									
Madison	46,385	9	1	0	0	0	115	0	1
Milwaukee	509,192	69	15	16	0	0	60	38	8
Racine	67,707	6	1	2	0	0	2	0	2
Superior	39,671	0	0	0	0	0	0	0	2
WEST NORTH CENTRAL									
Minnesota:									
Duluth	110,502	8	1	0	0	0	7	0	0
Minneapolis	425,435	100	17	13	0	0	115	4	9
St. Paul	246,001	25	14	11	0	1	6	6	11
Iowa:									
Davenport	(1)	3	1	2	0	—	0	0	—
Sioux City	(1)	3	2	0	0	—	1	0	—
Waterloo	36,771	4	0	0	0	—	30	0	—
Missouri:									
Kansas City	367,481	—	8	—	—	—	—	—	—
St. Joseph	78,342	2	2	2	0	0	0	0	3
St. Louis	821,543	42	42	74	2	—	110	5	—
North Dakota:									
Fargo	26,403	2	0	0	0	—	0	18	—
Grand Forks	14,811	0	0	0	0	—	3	0	—
South Dakota:									
Aberdeen	15,036	2	0	0	0	—	23	85	—
Sioux Falls	30,127	1	1	0	0	—	0	0	0
Nebraska:									
Lincoln	60,941	8	1	0	0	1	0	1	1
Omaha	211,768	18	5	1	0	0	14	1	10
Kansas:									
Topeka	55,411	8	1	1	0	0	11	1	0
Wichita	88,367	13	3	0	0	1	63	1	6
SOUTH ATLANTIC									
Delaware:									
Wilmington	122,049	4	2	7	0	0	151	0	25
Maryland:									
Baltimore	795,296	95	26	17	71	7	871	164	48
Cumberland	33,741	1	0	4	3	0	2	0	5
Frederick	12,035	0	0	0	0	1	10	0	0
District of Columbia:									
Washington	497,906	31	13	19	8	2	148	0	30
Virginia:									
Lynchburg	30,395	21	1	1	0	0	11	2	4
Norfolk	(1)	20	2	1	0	0	7	4	7
Richmond	189,403	1	2	2	0	4	9	4	10
Roanoke	58,208	1	1	2	0	0	73	1	3
West Virginia:									
Charleston	49,019	3	1	0	6	0	16	0	0
Wheeling	56,208	2	1	2	0	0	28	0	5
North Carolina:									
Raleigh	30,371	1	1	0	0	1	0	0	2
Wilmington	37,061	26	0	0	0	1	0	2	4
Winston-Salem	69,031	3	0	1	0	0	88	1	4
South Carolina:									
Charleston	73,135	0	0	0	40	4	4	0	3
Columbia	41,225	3	1	0	0	—	1	1	—
Greenville	27,311	0	1	0	0	—	0	4	—
Georgia:									
Atlanta	(1)	8	2	1	148	4	4	0	0
Brunswick	16,800	21	0	0	1	0	0	0	0
Savannah	33,134	1	1	1	20	—	12	0	3

1 No estimate made.

## City reports for week ended March 6, 1926—Continued

Division, State, and city	Population July 1, 1925, estimated	Chicken pox, cases reported	Diphtheria		Influenza		Measles, cases reported	Mumps, cases reported	Pneumonia, deaths reported
			Cases, estimated expectancy	Cases reported	Cases reported	Deaths reported			
SOUTH ATLANTIC—CON.									
Florida:									
St. Petersburg.....	26,847		0			0			1
Tampa.....	94,743	0	2	0	2	1	1	1	6
EAST SOUTH CENTRAL									
Kentucky:									
Covington.....	58,309	0	1	0	0		0	0	3
Louisville.....	305,935	9	6	3	10	0	140	0	17
Tennessee:									
Memphis.....	174,533	20	5	3	0	9	14	2	10
Nashville.....	136,220	4	1	0	0	7	92	1	6
Alabama:									
Birmingham.....	205,670	19	2	1	341	30	9	1	21
Mobile.....	65,955	2	1	1	5	4	0	0	3
Montgomery.....	46,481	9	0	1	5	0	0	13	0
WEST SOUTH CENTRAL									
Arkansas:									
Fort Smith.....	31,643	11	1	0	0		1	0	
Little Rock.....	74,216	5	0	0	27	3	0	1	1
Louisiana:									
New Orleans.....	414,493	6	11	10	24	14	1	0	19
Shreveport.....	57,857	5	1	0	11	0	0	0	0
Oklahoma:									
Oklahoma City.....	(1)	1	2	0	46	1	0	1	7
Tulsa.....	124,478	1	1	1	0		2	0	
Texas:									
Dallas.....	194,450	21	5	4	16	4	1	0	16
Galveston.....	48,375	4	1	1	0	0	0	0	3
Houston.....	164,954	1	2	7	0	1	1	1	27
San Antonio.....	198,069	1	2	2	1	6	0	0	16
MOUNTAIN									
Montana:									
Billings.....	17,971	1	0	0	0	0	4	7	0
Great Falls.....	29,883	18	1	0	0	1	1	23	2
Helena.....	12,037	0	0	0	0	0	0	0	1
Missoula.....	12,668	0	0	0	70	2	0	0	0
Idaho:									
Boise.....	23,042	1	0	0	0	0	0	0	0
Colorado:									
Denver.....	280,911	31	8	2		9	10	2	17
Pueblo.....	43,787	4	2	0	0	0	8	0	2
New Mexico:									
Albuquerque.....	21,000	1	1	5	0	0	1	7	5
Arizona:									
Phoenix.....	38,609	2		0	0	0	0	0	1
Utah:									
Salt Lake City.....	130,948	17	2	6	0	0	0	24	4
Nevada:									
Reno.....	12,665	0	0	0	0	0	0	2	0
PACIFIC									
Washington:									
Seattle.....	(1)	48	6	12	0		33	89	
Spokane.....	103,897	8	3	8	0		0	0	
Tacoma.....	104,455		1						
Oregon:									
Portland.....	282,383	19	5	13	10	1	8	8	4
California:									
Los Angeles.....	(1)	118	33	37	26	6	11	11	26
Sacramento.....	72,260	3	1	1	0	0	0	0	2
San Francisco.....	557,530	57	24	12	3	3	56	17	5

No estimate made.

## City reports for week ended March 6, 1926—Continued

Division, State, and city	Scarlet fever		Smallpox			Tuber- culosis, deaths re- ported	Typhoid fever			Whoop- ing cough, cases re- ported	Deaths, all causes
	Cases, esti- mated expect- ancy	Cases re- ported	Cases, esti- mated expect- ancy	Cases re- ported	Deaths re- ported		Cases, esti- mated expect- ancy	Cases re- ported	Deaths re- ported		
NEW ENGLAND											
Maine:											
Portland.....	2	2	0	0	0	1	0	1	0	11	17
New Hampshire:											
Concord.....	1	0	0	0	0	0	0	0	0	0	11
Manchester.....	2	6	0	0	0	0	0	0	1	0	12
Vermont:											
Barre.....	1	0	0	0	0	2	0	0	0	0	2
Massachusetts:											
Boston.....	61	83	0	0	0	9	2	2	0	184	274
Fall River.....	3	3	0	0	0	2	1	0	0	2	35
Springfield.....	7	9	0	0	0	7	0	0	0	18	31
Worcester.....	10	4	0	0	0	5	1	0	0	12	63
Rhode Island:											
Pawtucket.....	1	1	0	0	0	2	0	0	0	6	31
Providence.....	8	5	0	0	0	1	0	0	0	0	63
Connecticut:											
Bridgeport.....	9	19	0	0	0	2	0	0	0	0	43
Hartford.....	6	7	0	0	0	3	0	0	0	8	44
New Haven.....	6	14	0	0	0	0	0	2	0	22	42
MIDDLE ATLANTIC											
New York:											
Buffalo.....	19	18	0	0	0	14	1	1	0	29	143
New York.....	237	173	0	0	0	101	7	2	4	82	1,851
Rochester.....	18	8	0	0	0	2	1	2	0	15	120
Syracuse.....	16	3	0	0	0	2	0	0	0	60	67
New Jersey:											
Camden.....	4	14	0	0	0	2	0	0	0	0	66
Newark.....	24	35	1	0	0	10	0	0	0	26	131
Trenton.....	4	1	0	0	0	2	0	1	0	0	57
Pennsylvania:											
Philadelphia.....	74	65	0	0	0	49	3	2	0	49	870
Pittsburgh.....	26	47	0	0	0	9	0	1	1	36	217
Reading.....	2	8	0	0	0	3	0	0	0	5	45
EAST NORTH CENTRAL											
Ohio:											
Cincinnati.....	13	35	2	2	0	17	1	1	0	66	127
Cleveland.....	34	100	1	0	0	16	1	0	0	114	218
Columbus.....	9	16	1	7	0	11	0	0	0	5	94
Toledo.....	21	13	3	0	0	4	0	0	0	27	65
Indiana:											
Fort Wayne.....	4	8	1	0	0	0	1	0	0	1	23
Indianapolis.....	8	14	6	23	0	7	0	0	0	63	113
South Bend.....	4	2	1	2	0	0	0	0	0	4	14
Terre Haute.....	3	2	1	0	0	0	0	0	0	2	20
Illinois:											
Chicago.....	129	129	3	1	0	52	3	3	0	44	803
Peoria.....	4	6	1	0	0	0	0	0	0	11	32
Springfield.....	1	5	1	0	0	2	0	1	0	17	21
Michigan:											
Detroit.....	93	117	3	0	0	17	1	2	0	44	365
Flint.....	7	25	1	0	0	0	0	0	0	22	20
Grand Rapids.....	9	24	1	0	0	0	1	0	0	60	30
Wisconsin:											
Madison.....	4	4	0	0	0	1	0	0	0	4	8
Milwaukee.....	33	18	4	0	0	10	0	0	0	56	116
Racine.....	3	5	1	0	0	1	0	0	0	34	13
Superior.....	2	3	4	0	0	0	0	0	0	0	7
WEST NORTH CENTRAL											
Minnesota:											
Duluth.....	4	17	1	0	0	1	1	0	0	16	11
Minneapolis.....	40	60	11	0	0	3	0	0	0	5	89
St. Paul.....	28	48	7	0	0	2	1	0	0	49	67

¹Pulmonary tuberculosis only.

## City reports for week ended March 6, 1926—Continued

Division, State, and city	Scarlet fever		Smallpox			Tuber- culosis, deaths re- ported	Typhoid fever			Whoop- ing cough, cases re- ported	Deaths, all causes
	Cases, esti- mated expect- ancy	Cases re- ported	Cases, esti- mated expect- ancy	Cases re- ported	Deaths re- ported		Cases, esti- mated expect- ancy	Cases re- ported	Deaths re- ported		
WEST NORTH CENTRAL—contd											
Iowa:											
Davenport.....	2	2	2	0	-----	-----	1	0	-----	4	-----
Sioux City.....	2	0	1	2	-----	-----	0	0	-----	1	-----
Waterloo.....	2	1	1	1	-----	-----	0	0	-----	1	-----
Missouri:											
Kansas City....	11	-----	2	-----	-----	-----	0	-----	-----	-----	-----
St. Joseph.....	3	3	0	0	0	0	0	0	0	0	34
St. Louis.....	32	185	5	10	0	14	1	0	0	10	237
North Dakota:											
Fargo.....	2	3	0	0	0	0	0	0	0	2	5
Grand Forks....	0	2	0	0	-----	-----	0	0	-----	0	-----
South Dakota:											
Aberdeen.....	4	0	0	0	-----	-----	0	0	-----	1	-----
Sioux Falls.....	3	9	0	1	0	0	0	0	0	0	-----
Nebraska:											
Lincoln.....	3	5	0	0	0	0	0	0	0	16	19
Omaha.....	5	10	6	13	0	3	0	0	0	3	52
Kansas:											
Topeka.....	2	0	0	0	0	0	0	0	0	0	6
Wichita.....	3	6	2	0	0	2	0	0	0	10	40
SOUTH ATLANTIC											
Delaware:											
Wilmington....	2	3	0	0	0	4	0	0	0	3	76
Maryland:											
Baltimore.....	40	35	1	0	0	14	2	0	0	52	258
Cumberland.....	1	1	0	0	0	0	0	0	0	1	15
Frederick.....	1	1	0	0	0	0	0	0	0	0	4
District of Colum- bia:											
Washington....	27	21	1	0	0	10	1	0	0	22	194
Virginia:											
Lynchburg.....	1	0	0	0	0	0	0	1	0	6	11
Norfolk.....	1	9	0	0	0	1	0	0	0	4	-----
Richmond.....	3	6	0	0	0	2	0	0	0	0	60
Roanoke.....	1	0	1	3	0	0	0	0	0	3	15
West Virginia:											
Charleston.....	0	0	0	1	0	2	0	0	0	14	26
Wheeling.....	1	5	0	0	0	2	0	0	0	0	21
North Carolina:											
Raleigh.....	1	0	0	2	0	1	0	0	0	0	6
Wilmington....	0	0	0	0	0	0	0	0	0	3	16
Winston-Salem..	0	1	3	1	0	1	0	0	0	5	21
South Carolina:											
Charleston.....	0	0	0	0	0	2	1	0	0	0	33
Columbia.....	0	0	1	0	0	0	0	0	0	0	-----
Greenville.....	0	0	1	0	0	0	0	0	0	2	8
Georgia:											
Atlanta.....	5	2	3	6	0	5	0	1	1	0	80
Brunswick.....	0	0	0	0	0	0	0	1	0	0	7
Savannah.....	0	2	0	1	0	1	0	0	0	0	31
Florida:											
St. Petersburg..	0	0	1	0	0	2	0	0	0	0	15
Tampa.....	0	1	0	34	0	2	2	0	0	0	32
EAST SOUTH CENTRAL											
Kentucky:											
Covington.....	2	0	0	0	0	0	0	0	0	0	23
Louisville.....	5	11	1	0	0	6	0	1	0	4	81
Tennessee:											
Memphis.....	3	14	2	2	0	4	1	0	0	1	79
Nashville.....	4	7	2	0	0	0	1	1	0	3	63
Alabama:											
Birmingham..	2	4	7	11	0	10	1	0	0	13	110
Mobile.....	1	0	2	0	0	4	0	0	0	0	37
Montgomery....	0	0	0	0	0	0	0	0	0	0	19



## City reports for week ended March 6, 1926—Continued

Division, State, and city	Scarlet fever		Smallpox			Tuber- culosis, deaths re- ported	Typhoid fever			Whoop- ing cough, cases re- ported	Deaths, all causes
	Cases, es- timated ex- pectancy	Cases re- ported	Cases, es- timated ex- pectancy	Cases re- ported	Deaths re- ported		Cases, es- timated ex- pectancy	Cases re- ported	Deaths re- ported		
WEST SOUTH CENTRAL											
Arkansas:											
Fort Smith.....	0	0	1	0	0	0	0	0	0	3	
Little Rock.....	1	1	0	0	0	0	0	1	0	0	
Louisiana:											
New Orleans.....	5	13	3	15	0	20	2	8	0	2	168
Shreveport.....	1	1	2	1	0	1	1	0	0	9	24
Oklahoma:											
Oklahoma City.....	3	5	5	0	0	1	0	1	0	0	24
Tulsa.....	1	2	2	0	0	0	0	0	0	0	
Texas:											
Dallas.....	1	2	5	11	0	7	0	0	0	16	60
Galveston.....	1	1	1	8	0	1	0	0	0	0	18
Houston.....	1	1	2	10	0	4	0	0	0	0	69
San Antonio.....	1	2	0	0	0	7	0	0	0	0	64
MOUNTAIN											
Montana:											
Billings.....	1	2	1	0	0	0	0	0	0	1	12
Great Falls.....	2	2	2	0	0	1	0	0	0	7	10
Helena.....	0	1	0	0	0	0	0	0	0	0	2
Missoula.....	1	1	0	0	0	1	0	0	0	0	6
Idaho:											
Boise.....	0	1	1	3	0	0	0	0	0	0	7
Colorado:											
Denver.....	12	23	2	0	0	8	0	16	0	69	93
Pueblo.....	1	1	1	0	0	1	0	0	0	6	12
New Mexico:											
Albuquerque.....	1	8	0	0	0	4	0	0	0	2	18
Arizona:											
Phoenix.....	0	0	0	0	0	10	0	0	0	0	24
Utah:											
Salt Lake City.....	4	6	1	1	0	4	0	0	0	44	33
Nevada:											
Reno.....	0	0	0	0	0	0	0	0	0	0	3
PACIFIC											
Washington:											
Seattle.....	10	37	3	10	0	0	1	4	0	2	0
Spokane.....	4	29	7	0	0	0	0	0	0	3	0
Tacoma.....	2	3	3	0	0	0	0	0	0	0	0
Oregon:											
Portland.....	6	13	12	15	0	5	0	0	0	2	63
California:											
Los Angeles.....	21	37	4	72	8	24	2	1	0	5	264
Sacramento.....	1	3	0	2	0	3	0	0	0	0	30
San Francisco.....	15	10	7	5	1	9	1	1	0	5	139

Division, State, and city	Cerebro-spinal meningitis		Lethargic encephalitis		Pellagra		Poliomyelitis (infantile paralysis)		
	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases, estimated expectancy	Cases	Deaths
<b>MIDDLE ATLANTIC</b>									
New York:									
New York.....	5	0	7	3	0	0	1	3	2
Rochester.....	0	0	1	0	0	0	0	0	0
Pennsylvania:									
Philadelphia.....	1	0	0	1	0	0	0	0	0
Pittsburgh.....	1	0	0	0	0	0	0	0	0

## City reports for week ended March 6, 1926—Continued

Division, State, and city	Cerebrospinal meningitis		Lethargic encephalitis		Pellagra		Polioomyelitis (infantile paralysis)		
	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases, estimated expectancy	Cases	Deaths
<b>EAST NORTH CENTRAL</b>									
Illinois:									
Chicago.....	1	1	0	0	0	0	0	0	0
Michigan:									
Detroit.....	0	0	0	1	0	0	1	0	0
<b>WEST NORTH CENTRAL</b>									
Minnesota:									
Minneapolis.....	0	0	1	0	0	0	0	0	0
Missouri:									
St. Louis.....	1	0	0	0	0	0	0	0	0
Nebraska:									
Lincoln.....	2	1	0	0	0	0	0	0	0
<b>SOUTH ATLANTIC</b>									
Maryland:									
Baltimore.....	1	1	2	0	0	0	0	0	0
District of Columbia:									
Washington.....	0	0	2	1	0	0	0	1	0
South Carolina:									
Charleston.....	0	0	0	0	0	2	0	0	1
Georgia:									
Atlanta.....	0	0	0	0	0	1	0	0	0
Brunswick.....	0	0	0	0	1	0	0	0	0
Savannah.....	0	0	0	0	1	0	0	0	0
<b>WEST SOUTH CENTRAL</b>									
Arkansas:									
Little Rock.....	0	1	0	0	0	1	0	0	0
Louisiana:									
New Orleans <sup>1</sup> .....	1	0	1	0	0	1	0	0	0
Shreveport.....	0	0	0	1	0	2	0	0	0
Texas:									
Houston.....	0	0	0	0	0	1	0	0	0
<b>MOUNTAIN</b>									
Colorado:									
Denver.....	0	0	0	1	0	0	0	0	0
<b>PACIFIC</b>									
Washington:									
Seattle.....	12	0	0	0	0	0	0	0	0
Spokane.....	9	0	0	0	0	0	0	0	0
Oregon:									
Portland.....	1	0	0	0	0	0	0	0	0
California:									
Los Angeles.....	0	0	2	1	0	0	0	1	0
Sacramento.....	1	2	1	0	0	0	0	0	0
San Francisco.....	1	0	0	0	0	0	0	0	0

<sup>1</sup>Dengue, 1 case at New Orleans, La.

The following table gives the rates per 100,000 population for 103 cities for the five-week period ended March 6, 1926, compared with those for a like period ended March 7, 1925. The population figures used in computing the rates are approximate estimates as of July 1, 1925 and 1926, respectively, authoritative figures for many of the cities not being available. The 103 cities reporting cases had an estimated aggregate population of nearly 30,000,000 in

1925 and nearly 30,500,000 in 1926. The 96 cities reporting deaths had more than 29,250,000 estimated population in 1925 and more than 29,750,000 in 1926. The number of cities included in each group and the estimated aggregate populations are shown in a separate table below.

*Summary of weekly reports from cities, January 31 to March 6, 1926—Annual rates per 100,000 population—Compared with rates for the corresponding period of 1925<sup>1</sup>*

## DIPHTHERIA CASE RATES

	Week ended—									
	Feb. 7, 1925	Feb. 6, 1926	Feb. 14, 1925	Feb. 13, 1926	Feb. 21, 1925	Feb. 20, 1926	Feb. 28, 1925	Feb. 27, 1926	Mar. 7, 1925	Mar. 6, 1926
103 cities .....	<sup>2</sup> 169	134	<sup>2</sup> 163	<sup>2</sup> 136	153	137	<sup>4</sup> 163	<sup>5</sup> 134	156	<sup>6</sup> 124
New England.....	185	97	237	123	232	116	<sup>4</sup> 184	102	225	<sup>7</sup> 95
Middle Atlantic.....	170	129	104	140	162	132	177	118	166	<sup>8</sup> 111
East North Central.....	136	119	124	<sup>2</sup> 132	116	134	111	<sup>3</sup> 140	107	<sup>9</sup> 123
West North Central.....	247	229	251	168	203	202	289	<sup>9</sup> 263	273	<sup>9</sup> 235
South Atlantic.....	<sup>2</sup> 145	133	<sup>2</sup> 173	135	148	105	108	<sup>10</sup> 73	98	109
East South Central.....	58	42	63	47	74	57	47	<sup>11</sup> 55	58	47
West South Central.....	167	138	154	116	110	90	154	116	137	103
Mountain.....	185	127	92	173	157	218	148	<sup>12</sup> 163	83	73
Pacific.....	257	189	171	140	157	205	246	216	224	<sup>13</sup> 200

## MEASLES CASE RATES

	<sup>2</sup> 242	1,481	<sup>2</sup> 285	<sup>3</sup> 1,717	367	1,994	<sup>4</sup> 342	<sup>5</sup> 2,024	403	<sup>6</sup> 1,813
103 cities .....										
New England.....	556	2,408	637	2,347	695	2,709	<sup>4</sup> 569	2,188	633	<sup>7</sup> 2,457
Middle Atlantic.....	204	1,347	286	1,511	371	1,913	341	2,040	426	<sup>8</sup> 1,427
East North Central.....	415	2,152	470	<sup>2</sup> 2,683	637	2,929	589	<sup>3</sup> 3,031	733	<sup>9</sup> 2,691
West North Central.....	10	408	28	542	26	677	70	<sup>9</sup> 642	65	<sup>9</sup> 845
South Atlantic.....	<sup>2</sup> 46	2,579	<sup>2</sup> 92	3,112	104	3,276	77	<sup>10</sup> 2,856	94	2,697
East South Central.....	47	711	68	732	47	960	42	<sup>11</sup> 1,311	79	1,323
West South Central.....	35	34	48	13	13	9	48	0	22	17
Mountain.....	758	91	148	109	601	137	888	<sup>12</sup> 0	28	209
Pacific.....	58	105	28	167	61	202	58	162	102	<sup>13</sup> 232

## SCARLET FEVER CASE RATES

	<sup>2</sup> 397	208	<sup>2</sup> 385	<sup>2</sup> 208	376	309	<sup>4</sup> 300	<sup>5</sup> 287	381	<sup>6</sup> 290
103 cities .....										
New England.....	592	402	544	362	585	362	<sup>4</sup> 543	354	563	<sup>7</sup> 349
Middle Atlantic.....	372	209	406	197	374	208	411	187	370	<sup>8</sup> 175
East North Central.....	398	338	371	<sup>3</sup> 353	403	372	402	<sup>3</sup> 334	403	345
West North Central.....	844	746	695	770	719	772	711	<sup>9</sup> 764	752	<sup>9</sup> 815
South Atlantic.....	<sup>2</sup> 241	163	<sup>2</sup> 261	171	157	150	102	<sup>10</sup> 203	161	163
East South Central.....	89	119	194	114	205	244	168	<sup>11</sup> 182	179	187
West South Central.....	164	138	114	108	119	108	137	112	176	90
Mountain.....	324	155	370	218	240	237	305	<sup>12</sup> 109	277	337
Pacific.....	246	326	168	310	177	332	213	313	207	<sup>13</sup> 331

<sup>1</sup> The figures given in this table are rates per 100,000 population, annual basis, and not the number of cases reported. Populations used are estimated as of July 1, 1925, and 1926, respectively.

<sup>2</sup> Wilmington, Del., not included.

<sup>3</sup> Madison, Wis., not included.

<sup>4</sup> Hartford, Conn., not included.

<sup>5</sup> Madison, Wis., Kansas City, Mo., Winston-Salem, N. C., Covington, Ky., and Denver, Colo., not included.

<sup>6</sup> Barre, Vt., Newark, N. J., Kansas City, Mo., and Tacoma, Wash., not included.

<sup>7</sup> Barre, Vt., not included.

<sup>8</sup> Newark, N. J., not included.

<sup>9</sup> Kansas City, Mo., not included.

<sup>10</sup> Winston-Salem, N. C., not included.

<sup>11</sup> Covington, Ky., not included.

<sup>12</sup> Denver, Colo., not included.

<sup>13</sup> Tacoma, Wash., not included.

Summary of weekly reports from cities, January 31 to March 6, 1926—Annual rates per 100,000 population—Compared with rates for the corresponding period of 1925—Continued

## SMALLPOX CASE RATES

	Week ended—									
	Feb. 7, 1925	Feb. 6, 1926	Feb. 14, 1925	Feb. 13, 1926	Feb. 21, 1925	Feb. 20, 1926	Feb. 28, 1925	Feb. 27, 1926	Mar. 7, 1925	Mar. 6, 1926
103 cities.....	73	47	76	53	64	41	64	41	60	47
New England.....	0	0	0	0	0	0	10	0	0	70
Middle Atlantic.....	2	0	4	1	2	0	3	0	1	60
East North Central.....	36	16	33	23	52	33	26	319	40	23
West North Central.....	141	53	187	32	123	63	117	900	111	62
South Atlantic.....	58	101	92	81	63	51	40	1060	48	100
East South Central.....	756	42	620	52	488	104	536	1155	599	67
West South Central.....	119	155	132	112	79	142	110	133	70	194
Mountain.....	28	73	157	73	83	36	55	1273	46	36
Pacific.....	254	324	210	461	204	194	298	245	196	254

## TYPHOID FEVER CASE RATES

	13	7	12	6	10	7	13	5	10	10
103 cities.....	13	7	12	6	10	7	13	5	10	10
New England.....	29	14	19	5	0	7	13	5	7	12
Middle Atlantic.....	13	3	6	0	10	4	8	2	10	5
East North Central.....	8	3	6	3	6	5	6	1	8	5
West North Central.....	0	6	10	4	4	6	16	2	6	10
South Atlantic.....	16	13	20	15	8	4	19	12	8	6
East South Central.....	11	21	37	10	32	5	32	11	32	10
West South Central.....	22	4	44	0	40	22	40	30	26	39
Mountain.....	28	36	18	0	37	18	74	18	9	146
Pacific.....	17	16	11	13	22	16	8	8	14	17

## INFLUENZA DEATH RATES

	29	35	27	34	29	50	34	46	30	52
96 cities.....	29	35	27	34	29	50	34	46	30	52
New England.....	46	12	26	19	17	2	39	19	17	12
Middle Atlantic.....	24	20	22	15	21	27	20	39	15	71
East North Central.....	12	12	16	11	17	11	23	14	25	14
West North Central.....	19	19	11	4	21	19	36	22	34	5
South Atlantic.....	44	68	52	64	52	137	46	103	50	47
East South Central.....	63	104	58	62	68	161	116	143	95	250
West South Central.....	92	180	116	302	145	298	140	227	135	132
Mountain.....	55	109	55	127	55	109	18	100	18	109
Pacific.....	36	67	4	35	11	96	25	35	25	34

## PNEUMONIA DEATH RATES

	214	206	212	213	207	259	190	200	190	271
96 cities.....	214	206	212	213	207	259	190	200	190	271
New England.....	204	201	230	156	232	175	235	165	218	184
Middle Atlantic.....	252	213	230	212	215	289	184	316	209	301
East North Central.....	152	145	153	161	173	180	160	180	182	204
West North Central.....	106	127	133	77	127	125	150	81	136	96
South Atlantic.....	285	344	247	406	232	468	275	456	251	340
East South Central.....	290	240	280	223	204	296	208	309	247	311
West South Central.....	334	387	440	553	387	553	203	378	218	387
Mountain.....	185	228	268	328	203	173	259	410	129	237
Pacific.....	175	185	171	138	189	174	145	142	124	126

<sup>1</sup> Wilmington, Del., not included.

<sup>2</sup> Madison, Wis., not included.

<sup>4</sup> Hartford, Conn., not included.

<sup>6</sup> Madison, Wis., Kansas City, Mo., Winston-Salem, N. C., Covington, Ky., and Denver, Colo., not included.

<sup>8</sup> Barre, Vt., Newark, N. J., Kansas City, Mo., and Tacoma, Wash., not included.

<sup>9</sup> Barre, Vt., not included.

<sup>10</sup> Newark, N. J., not included.

<sup>11</sup> Kansas City, Mo., not included.

<sup>12</sup> Winston-Salem, N. C., not included.

<sup>13</sup> Covington, Ky., not included.

<sup>14</sup> Denver, Colo., not included.

<sup>15</sup> Tacoma, Wash., not included.

*Number of cities included in summary of weekly reports, and aggregate population of cities in each group, approximated as of July 1, 1925 and 1926, respectively*

Group of cities	Number of cities reporting cases	Number of cities reporting deaths	Aggregate population of cities reporting cases		Aggregate population of cities reporting deaths	
			1925	1926	1925	1926
Total.....	103	96	29,944,996	30,473,129	29,251,658	29,764,201
New England.....	12	12	2,176,124	2,206,124	2,176,124	2,206,124
Middle Atlantic.....	10	10	10,346,970	10,476,970	10,346,970	10,476,970
East North Central.....	16	16	7,481,656	7,655,436	7,481,656	7,655,436
West North Central.....	14	11	2,594,962	2,634,602	2,461,380	2,499,036
South Atlantic.....	21	21	2,716,070	2,776,070	2,716,070	2,776,070
East South Central.....	7	7	993,103	1,004,953	993,103	1,004,953
West South Central.....	8	6	1,184,057	1,212,057	1,078,198	1,103,695
Mountain.....	9	9	563,912	572,773	503,912	572,773
Pacific.....	6	4	1,888,142	1,934,084	1,434,245	1,469,144

# FOREIGN AND INSULAR

## THE FAR EAST

*Report for week ended February 20, 1926.*—The following report for the week ended February 20, 1926, was transmitted by the far eastern bureau of the health section of the League of Nations' secretariat, located at Singapore, to the headquarters at Geneva.

Port	Plague		Cholera		Small-pox		Port	Plague		Cholera		Small-pox	
	Cases	Deaths	Cases	Deaths	Cases	Deaths		Cases	Deaths	Cases	Deaths	Cases	Deaths
Calcutta	0	0	37	63	36		Tsuruga	0	0	0	0	0	0
Bombay	6	0	0	12	5		Hakodate	0	0	0	0	0	0
Madras	0	0	7	8	3		Keelung	0	0	0	0	0	0
Rangoon	8	0	0	13	1		Fusan	0	0	0	0	0	0
Karachi	0	0	0	21	3		Dairen	0	0	0	0	0	0
Negapatam	0	0	11	5	5		Adelaide	0	0	0	0	0	0
Colombo	0	0	0	0	1		Brisbane	0	0	0	0	0	0
Basra	0	0	0	0	4		Fremantle	0	0	0	0	0	0
Singapore	0	0	0	0	3		Melbourne	0	0	0	0	0	0
Port Swettenham	0	0	0	0	0		Sydney	0	0	0	0	0	0
Penang	0	0	0	0	0		Rockhampton	0	0	0	0	0	0
Batavia	0	0	0	0	0		Townsville	0	0	0	0	0	0
Surabaya	2	2	0	0	0		Port Darwin	0	0	0	0	0	0
Samarang	0	0	0	0	0		Broome	0	0	0	0	0	0
Belawan Deli	0	0	0	0	0		Port Moresby	0	0	0	0	0	0
Makassar	2	1	0	0	0		Auckland	0	0	0	0	0	0
Pontianak (Borneo)	0	0	0	0	0		Wellington	0	0	0	0	0	0
Sandakan (North Borneo)	0	0	0	0	0		Christchurch	0	0	0	0	0	0
Kuching (Sarawak)	0	0	0	0	0		Invercargill	0	0	0	0	0	0
Timor Dilly	0	0	0	0	24	1	Honolulu	0	0	0	0	0	0
Manila	0	0	0	0	0		Suez	0	0	0	0	0	0
Zamboanga	0	0	0	0	0		Tor Quarantine Station	0	0	0	0	0	0
Bangkok	1	0	26	17	13	8	Alexandria	0	0	0	0	0	0
Saigon and Cholon	0	0	0	0	2	0	Port-Saïd	0	0	0	0	0	0
Haiphong	0	0	0	0	0	0	Mombasa (Kenya)	0	0	0	0	0	0
Tourane	0	0	0	0	0	0	Zanzibar	0	0	0	0	0	0
Hongkong	0	0	0	0	1	0	Massowah	0	0	0	0	0	0
Shanghai	0	0	0	0	9	0	Djibuti	0	0	0	0	0	0
Amoy	0	0	0	0	3	0	Berbera	0	0	0	0	0	0
Nagasaki	0	0	0	0	1	0	Mozambique	0	0	0	0	0	0
Yokohama	0	0	0	0	0	0	Lourenco Marques	0	0	0	0	0	0
Simonseski	0	0	0	0	0	0	Durban	0	0	0	0	0	0
Moji	0	0	0	0	0	0	East London	0	0	0	0	0	0
Kobe	0	0	0	0	0	0	Port Elizabeth	0	0	0	0	0	0
Osaka	0	0	0	0	0	0	Cape Town	0	0	0	0	0	0
Nagata	0	0	0	0	0	0	Port-Louis (Mauritius)	0	0	0	0	0	0
							Seychelles	0	0	0	0	0	0

## BRAZIL

*Plague—Malaria—Typhoid fever --Bahia.*—During the period from January 17 to February 13, 1926, 43 deaths from malaria, 3 cases of plague with 1 death, and 29 cases of typhoid fever with 7 deaths were reported at Bahia, Brazil.

## CANADA

*Communicable diseases—February 27—March 6, 1926.*—The following table shows the number of cases of certain communicable diseases in seven Provinces of Canada during the week ended March 6, 1926. The information was supplied by the Canadian Ministry of Health.

Disease	Nova Scotia	New Brunswick	Quebec	Ontario	Manitoba	Saskatchewan	Alberta	Total
Cerebrospinal fever.....	-----	-----	1	1	-----	-----	-----	2
Influenza.....	31	-----	-----	-----	-----	-----	-----	31
Poliomyelitis.....	-----	-----	1	-----	-----	-----	-----	1
Smallpox.....	-----	-----	-----	4	-----	5	3	12
Typhoid fever.....	1	1	6	7	-----	-----	2	17

*Communicable diseases—Ontario—February, 1926 (comparative).*—During the month of February, 1926, communicable diseases were reported in the Province of Ontario as follows:

Disease	February, 1926		February, 1925		Disease	February, 1926		February, 1925	
	Cases	Deaths	Cases	Deaths		Cases	Deaths	Cases	Deaths
Cerebrospinal meningitis.....	3	2	8	4	Mumps.....	588	-----	1,112	-----
Chancroid.....	-----	-----	15	-----	Pneumonia.....	227	-----	241	-----
Chicken pox.....	785	-----	539	-----	Poliomyelitis.....	-----	-----	4	3
Diphtheria.....	201	18	285	17	Scarlet fever.....	820	4	621	10
German measles.....	511	-----	13	1	Septic sore throat.....	2	-----	3	1
Gonorrhea.....	190	-----	216	-----	Smallpox.....	86	-----	13	1
Influenza.....	-----	31	-----	24	Syphilis.....	162	-----	163	-----
Lethargic encephalitis.....	2	1	11	9	Tuberculosis.....	163	79	158	88
Measles.....	1,899	2	1,676	3	Typhoid fever.....	26	-----	40	3
					Whooping cough.....	420	2	427	8

*Smallpox distribution.*—The occurrence of smallpox was distributed in 24 localities with the greatest number of cases reported at Kitchener, viz, 26. At Toronto 4 cases were reported; at Trenton, 8; North Bay, 3; Ottawa, 1 case. For further statement of occurrence according to locality see page 595.

*Epidemic measles in border cities.*—Press notice received under date of March 4, 1926, from Windsor, Ontario, Canada, shows spread of epidemic measles in cities on the Canadian border and urges cooperation of citizens with the health authorities in checking spread of infection by reporting suspect or actual cases of the disease. On March 3, 23 new cases of measles were reported at Windsor. During the month of January, 1926, 164 cases, and in February, 292 cases of measles, were reported in Windsor and the border cities of Walkerville, Ford, Sandwich, and Ojibway (total population, 88,000).

## CHILE

*Typhoid fever—Typhus fever—December 15–31, 1925.* During the period December 15 to 31, 1925, 13 cases of typhoid fever and 46 cases of typhus fever were reported in the Republic of Chile, occurring in 13 localities. The distribution of the occurrence was as follows:

Locality	Ty-phoid fever	Ty-phus fever	Popu-lation	Locality	Ty-phoid fever	Ty-phus fever	Popu-lation
Achao.....		1	1,657	Los Angeles.....		5	13,274
Bulnes.....		1	3,987	Penco.....		2	4,408
Chillan.....		24	30,881	San Carlos.....		1	7,510
Concepcion.....		6	64,074	San Javier de Loncom.....	1		4,808
Constitution.....	4		7,827	Talca.....		1	36,079
Curico.....	7		15,879	Valparaiso.....	1	4	182,422
Linares.....		1	12,051				

## JAMAICA

*Communicable diseases—January 24–February 27, 1926.*—A supplementary report for the week ended January 30, 1926, shows the occurrence of 1 case of chicken pox, 1 case of smallpox (reported as alastrim), 2 cases of pulmonary tuberculosis, and 4 cases of typhoid fever in Jamaica.

During the four weeks ended February 27, 1926, communicable diseases were reported in Jamaica as follows: Chicken pox, 23 cases; diphtheria, 2; leprosy, 1; smallpox (reported as alastrim), 121; pulmonary tuberculosis, 40; typhoid fever, 43 cases.

## CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER

The reports contained in the following tables must not be considered as complete or final as regards either the lists of countries included or the figures for the particular countries for which reports are given.

Reports Received During Week Ended March 26, 1926<sup>1</sup>

## CHOLERA

Place	Date	Cases	Deaths	Remarks
India.....				Jan. 3-16, 1926: Cases, 4,680; deaths, 2,625.
Calcutta.....	Jan. 24-30.....	34	29	
Madras.....	Feb. 7-13.....	5	3	
Rangoon.....	Jan. 24-30.....	1	1	
Philippine Islands:				
Manila.....	Jan. 31-Feb. 6.....		2	
Province—				
Bataan.....	Jan. 2-16.....	1	1	
Bulacan.....	do.....	5	5	
Pampanga.....	Jan. 2-23.....	27	24	
Rizal.....	Dec. 20-31.....	14	11	
Siam:				
Bangkok.....	Jan. 24-30.....	31	19	

<sup>1</sup>From medical officers of the Public Health Service, American consuls, and other sources.



# CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued

## Reports Received During Week Ended March 26, 1926—Continued

### PLAGUE

Place	Date	Cases	Deaths	Remarks
Brazil:				
Bahia.....	Jan. 17-30.....	3	1	
Celebes:				
Mukassar.....	Jan. 20-26.....	3	3	Netherlands Indies.
India:				Jan. 3-16, 1926: Cases, 4,867;
Madras Presidency.....	Jan. 17-23.....	113	73	deaths, 3,938.
Rangoon.....	Jan. 24-30.....	3	2	
Iraq:				
Bagdad.....	Jan. 10-16.....	1	1	
Java:				
Batavia.....	Jan. 23-29.....	61	57	Province.
Cherbon.....	Jan. 10-16.....	1	1	
Surabaya.....	do.....	6	6	East Java and Madoera.
Siam:				
Bangkok.....	Jan. 24-30.....		1	
Straits Settlements:				
Singapore.....	Jan. 3-9.....	2	2	

### SMALLPOX

Canada:				
Ontario.....				Feb. 1-28, 1926: Cases, 86. Cor-
				responding period, year 1925—
				cases, 13; deaths, 1.
Do.....	Feb. 21-27.....	20		Later report.
Admaston.....	Feb. 1-28.....	5		Township.
Alice and Fraser.....	do.....	6		Do.
Belleville.....	do.....	4		
King.....	do.....	7		Do.
Kitchener.....	do.....	26		
North Bay.....	do.....	3		
Toronto.....	do.....	4		
Trenton.....	do.....	8		
Wilmot.....	do.....	6		Do.
Ceylon:				
Colombo.....	Jan. 31-Feb. 6.....	3		Port cases, 2. Town case in-
				fectured from India.
China:				
Chungking.....	Jan. 24-Feb. 6.....			Present.
Hongkong.....	Jan. 24-30.....	1		
Nanking.....	Jan. 24-Feb. 13.....			Prevalent.
South Manchuria Railway				
line.....				Feb. 7-13, 1926: Cases, 5.
An-shan.....	Feb. 7-13.....	3		
Changchun.....	do.....	1		
Mukden.....	do.....	1		
Swatow.....	Jan. 31-Feb. 13.....			Prevalent.
Ohosen:				
Seishin.....	Jan. 1-31.....	5	2	
Egypt:				
Alexandria.....	Feb. 5-11.....	2		
Great Britain:				
England and Wales.....	Jan. 30-Feb. 20.....	885		
Hull.....	Feb. 21-27.....	1		
Newcastle-on-Tyne.....	Feb. 14-20.....	3		
India:				Jan. 3-16, 1926: Cases, 9,218;
Bombay.....	Jan. 17-30.....	26	15	deaths, 2,241.
Calcutta.....	Jan. 24-30.....	47	40	
Karachi.....	Jan. 31-Feb. 6.....	8	3	
Madras.....	Feb. 7-13.....	10		
Rangoon.....	Jan. 24-30.....	6		
Italy:				
Catania.....	Feb. 15-21.....	1		
Jamaica.....	Jan. 24-30.....	1		Reported as alastrim.
Do.....	Jan. 31-Feb. 27.....	121		Do.
Japan:				
Nagasaki.....	Feb. 15-21.....	1		
Java:				
Surabaya.....	Jan. 10-16.....	24	6	
Mexico:				
Agua Calientes.....	Feb. 28-Mar. 6.....		3	
Guadalajara.....	Mar. 2-8.....		1	
Tampico.....	Feb. 22-28.....	1		

# CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued

## Reports Received During Week Ended March 26, 1926—Continued

### SMALLPOX—Continued

Place	Date	Cases	Deaths	Remarks
Palestine:				
Tiberias.....	Feb. 9-15.....	1		
Siam:				
Bangkok.....	Jan. 24-30.....	19	9	
Spain:				
Valencia.....	Feb. 14-27.....	5		
Straits Settlements:				
Singapore.....	Jan. 10-16.....	2	1	
Tunis:				
Tunis.....	Feb. 11-20.....	1		

### TYPHUS FEVER

Algeria:				
Algiers.....	Feb. 1-10.....	8		
Chile:				Dec. 15-31, 1925. Cases, 46.
Achoa.....	Dec. 15-31.....	1		
Bulnes.....	do.....	1		
Chillan.....	do.....	24		
Concepcion.....	do.....	6		
Linares.....	do.....	1		
Los Angeles.....	do.....	5		
Penco.....	do.....	2		
San Carlos.....	do.....	1		
Talca.....	do.....	1		
Valparaiso.....	do.....	4		
Mexico:				
Mexico City.....	Feb. 21-27.....	8		Including municipalities in Federal District.
Poland.....				Nov. 29-Dec. 10, 1925: Cases, 144; deaths, 12.
Union of South Africa:				
Cape Province—				
Grahamstown.....	Jan. 24-30.....	2		Outbreaks reported in districts of Harrismith, Libode, and Um-tata.

## Reports Received from December 26, 1925, to March 19, 1926<sup>1</sup>

### CHOLERA

Place	Date	Cases	Deaths	Remarks
Chosen.	October, 1925.....	6		
India:				Oct. 18-Dec. 19, 1925: Cases, 18,697; deaths, 10,318. Dec. 27, 1925-Jan. 2, 1926: Cases, 2,610; deaths, 1,453.
Calcutta.....	Nov. 1-28.....	101	89	
Do.....	Dec. 6-20.....		34	
Do.....	Dec. 27-Jan. 10.....		41	
Madras.....	Nov. 15-Jan. 2.....	174	70	
Do.....	Jan. 3-Feb. 6.....	70	43	
Rangoon.....	Nov. 8-Dec. 6.....	4	4	
Indo-China:				September, 1925: Cases, 6; deaths, 5. September, 1924: Cases, 7; deaths, 4. (European cases, 2.)
Province—				September, 1924: None.
Annam.....	Sept. 1-30.....	2	2	
Cochin China.....	do.....	5	3	
Saigon.....	Jan. 4-17.....	2	2	Including 100 square kilometers of surrounding country.
Tonkin.....	September, 1925.....	2		September, 1924: None.
Japan.....	Aug. 30-Oct. 17.....	408		
Do.....	Oct. 25-Nov. 28.....	82		
Philippine Islands:				
Manila.....	Nov. 9-Jan. 3.....	15	10	
Do.....	Jan. 4-31.....	11	21	

<sup>1</sup> From medical officers of the Public Health Service, American consuls, and other sources.

# **CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued**

**Reports Received from December 26, 1925, to March 19, 1926—Continued**

## **CHOLERA—Continued**

Place	Date	Cases	Deaths	Remarks
<b>Philippine Islands—Contd.</b>				
Province—				
Bataan.....	Nov. 30-Dec. 26....	29	25	
Bulacan.....	Oct. 18-Nov. 7.....	92	64	
Do.....	Nov. 23-Dec. 31....	200	88	
Laguna.....	Nov. 23-Dec. 26....	18	14	
Nueva Ecija.....	do.....	6	2	
Pampanga.....	Nov. 1-7.....	1	1	
Do.....	Nov. 23-Dec. 31....	113	85	
Rizal.....	Sept. 27-Nov. 21....	75	21	
Romblon.....	Dec. 7-13.....	23	12	
Russia.....	May-June.....	7		
Do.....	July-August.....	4		
Siam:				
Bangkok.....	Oct. 4-Nov. 14.....	108	68	
Do.....	Nov. 22-Dec. 26....	270	149	
Do.....	Dec. 27-Jan. 23....	115	83	
On vessel:				
Steamship.....	Oct. 3.....	9		Arrived at Bangkok, Siam; Cases in coolie passengers.

## **PLAGUE**

Argentina.....					
Buenos Aires.....	Jan. 24-30.....	1			Jan. 24-30, 1926: 6 cases, occurring in interior provinces of Salta and Santa Fe.
Brazil:					
Bahia.....	Nov. 8-Dec. 27....	3	1		
Do.....	Dec. 27-Jan. 2.....	1	1		
Santos.....	Dec. 8-21.....		2		
British East Africa:					
Kenya—					
Kisumu.....	Nov. 22-Dec. 5....	1	2		
Uganda Protectorate.....	September-November.	338	308		
Canary Islands:					
La Laguna.....	Dec. 24.....	3	2		
Las Palmas.....	do.....	1			
Do.....	Jan. 7.....	1	1		
Santa Cruz de Tenerife.....	Dec. 18-27.....	3			
Do.....	Dec. 28-Feb. 1....	3			
Celebes:					
Makassar.....	Dec. 29-Jan. 4....	4	4		Netherlands East Indies.
Ceylon:					
Colombo.....	Nov. 15-Dec. 5....	3	3		1 plague rodent.
Do.....	Dec. 27-Jan. 16....	2	2		
Do.....	Jan. 24-30.....				Do.
China:					
Nanking.....	Nov. 15-Jan. 23....				Prevalent.
Ecuador:					
Eloy Alfaro.....	Jan. 1-15.....	1			
Guayaquil.....	Nov. 1-Dec. 31....	31	12		
Do.....	Jan. 1-31.....	34	14		Rats taken, Nov. 1-Dec. 31, 1925, 49,370; rats found infected, 281.
Recreo (country estate).....	do.....	1			Rats taken, Jan. 1-31, 1926, 24,672; rats found infected, 234.
Egypt:					Jan. 1-Dec. 9, 1925: Cases, 138.
Beni Suef.....	Nov. 18.....	1	1		Corresponding period, 1924: Cases, 365.
Fayoum Province.....	Dec. 3-9.....	1	1		
Greece:					
Athens.....	Nov. 1-30.....	18	4		Including Piræus.
Do.....	Jan. 1-31.....	14	3		
Herakleion.....	Feb. 4.....	1			On island of Crete.
Patras.....	Nov. 13-Dec. 12....	4	1		
Hawaii Territory:					
Panulo.....					Jan. 29, 1926: Plague-infected rat found in vicinity.
India:					Oct. 18-Dec. 26, 1925: Cases, 13,259; deaths, 9,344. Dec. 27, 1925-Jan. 2, 1926: Cases, 1,879; deaths, 1,333.
Bombay.....	Dec. 6-12.....	1	1		
Do.....	Jan. 3-9.....	2	2		
Calcutta.....	Dec. 6-12.....	1	1		
Karachi.....	Nov. 1-Dec. 19....	4	3		
Madras.....	Oct. 25-Nov. 7.....	75	41		
Do.....	Nov. 15-21.....	35	22		
Do.....	Dec. 20-26.....	108	64		
Do.....	Jan. 3-9.....	135	83		

# **CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued**

**Reports Received from December 26, 1925, to March 19, 1926—Continued**

## **PLAGUE—Continued**

Place	Date	Cases	Deaths	Remarks
India—Continued.				
Rangoon.....	Oct. 25-Dec. 26.....	23	15	
Do.....	Dec. 27-Jan. 23.....	14	12	
Indo-China.....				September, October, 1925: Cases, 26; deaths, 23. September, 1924, fatal, 12.
Province—				September, 1924: Cases, 9; deaths, 9.
Cambodia.....	Sept. 1-30.....	11	11	September, 1924; 1 case, 1 death.
Cochin China.....	September-October.....	14	12	
Iraq:				
Bagdad.....	Dec. 13-Jan. 2.....	7	3	
Do.....	Jan. 24-30.....		4	
Java:				
Batavia.....	Oct. 24-Nov. 6.....	94	89	Province.
Do.....	Nov. 14-Jan. 1.....	315	297	
Do.....	Jan. 2-22.....	121	117	
Cheribon.....	Sept. 27-Oct. 17.....		166	
Do.....	Nov. 15-Dec. 19.....		96	
Djokjakarta.....	Oct. 20-Nov. 9.....			Epidemic in 1 locality.
Kediri.....	Dec. 7.....			Do.
Pekalongan.....	Sept. 27-Oct. 17.....		42	
Do.....	Nov. 8-Dec. 19.....		131	
Rembang.....	Oct. 20.....			Do.
Surabaya.....	Oct. 11-Dec. 26.....	59	59	
Do.....	Dec. 27-Jan. 9.....	16	16	
Tegal.....	Sept. 27-Oct. 17.....	6	6	
Do.....	Nov. 8-Dec. 10.....		29	
Madagascar.....				Nov. 1-30, 1925: Cases, 232; deaths, 220.
Province—				
Itasy.....	Sept. 16-Oct. 31.....	20	20	
Do.....	Nov. 16-30.....	13	13	
Moramanga.....	Sept. 16-Nov. 30.....	25	25	
Tananarive.....	do.....	368	341	
Town—				
Fort Dauphin.....	do.....	6	3	
Tamatave (port).....	Sept. 16-30.....	3	2	
Do.....	Oct. 16-Nov. 30.....	9	9	
Tananarive.....	Sept. 16-30.....	2	2	
Do.....	Nov. 1-30.....	11	11	
Mauritius Island.....	Sept. 20-Dec. 26.....	21	18	
Pamplemousses.....	Oct. 1-Nov. 30.....	3	2	
Port Louis.....	do.....	4	1	
Rivière du Rempart.....	do.....	2		
Netherlands Indies:				
Celebes Island—				
Makassar.....	Dec. 12.....			Epidemic.
Do.....	Jan. 6-12.....	2	2	
Nigeria.....	August-October.....	496	371	
Peru:				
Huasco.....	Jan. 26.....	15		Port 60 miles north of Callao.
Lima.....	Jan. 1-31.....	20		In hospital. Some cases in province.
Mollendo.....	do.....			12 or 15 cases reported unofficially.
Russia.....	May-June.....	67		
Do.....	July-September.....	157		
Senegal.....	September-October.....	45	25	
Siam.....	Aug. 23-Oct. 31.....	53	43	
Bangkok.....	Nov. 15-28.....	3	3	
Do.....	Jan. 3-23.....	38	32	
Straits Settlements:				
Singapore.....	Nov. 1-Dec. 5.....	8	8	
Syria:				
Beirut.....	Nov. 11-20.....	1		
Union of South Africa:				
Cape Province—				
Kimberley district.....	Dec. 13-19.....	1		European.
Middleburg district.....	Dec. 6-12.....	1		Native. On farm.
Steynsburg district.....	Nov. 15-21.....	1		
Orange Free State.....				
Boshof district.....	Nov. 29-Dec. 5.....	1	1	In native.
Bothaville district.....	Dec. 6-12.....	1	1	Native. On farm.

# **CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued**

**Reports Received from December 26, 1925, to March 19, 1926—Continued**

## **PLAGUE—Continued**

Place	Date	Cases	Deaths	Remarks
On vessel: Steamship Cid.....				Jan. 29, 1926. At Buenaventura, Columbia. Rat was killed while jumping ashore from vessel (See Public Health Reports, Feb. 26, 1926, p. 408.)

## **SMALLPOX**

Algeria:				
Algiers.....	Nov. 21-Dec. 31...	177		
Do.....	Jan. 1-10.....	64		
Do.....	Jan. 21-31.....	36		
Arabia:				
Aden.....	Nov. 29-Dec. 5.....	1		Imported.
Do.....	Jan. 10-Feb. 6.....	3	1	
Argentina:				
Rosario.....	October.....		1	
Australia:				
Queensland—				
Brisbane.....	Dec. 9-15.....	1		
Bahamas.....				In Nassau district. Stated to have been imported. Reported under date of Feb. 23, 1926.
Brazil:				
Pernambuco.....	Jan. 10-30.....	25	5	
Rio de Janeiro.....	Nov. 1-23.....	134	72	
Do.....	Dec. 6-26.....	65	26	
Do.....	Dec. 27-Jan. 16.....	37	29	
British East Africa:				
Kenya—				
Mombasa.....	Nov. 15-Dec. 19.....	14	6	
Do.....	Dec. 27-Jan. 2.....	1		From mainland.
Uganda Protectorate.....	Sept. 1-Oct. 31.....	8	4	
British South Africa:				
Northern Rhodesia.....	Jan. 5-11.....	2		
Southern Rhodesia.....	Nov. 13-Dec. 23.....	3		
Canada.....				Sept. 13-Jan. 2: In 7 Provinces, 186 cases. Jan. 3-23, 1926, cases, 115. Jan. 31-Feb. 6, 1926, cases, 33. Feb. 21-27, 1926, cases, 36.
Alberta.....	Jan. 10-Feb. 27.....	29		
Calgary.....	Dec. 13-19.....	1		From Drumheller, vicinity of Calgary.
British Columbia—				
Vancouver.....	Jan. 4-10.....	1		
Manitoba.....	Jan. 3-Feb. 27.....	26		
Winnipeg.....	Dec. 13-19.....	2		
Do.....	Jan. 3-Feb. 6.....	9		
New Brunswick—				
Northumberland.....	Dec. 6-13.....	1		
Ontario.....	December, 1925.....	32	1	
Do.....	Jan. 1-Feb. 13.....	103		
Do.....	Feb. 21-27.....	19		
Admaston.....	Jan. 1-31.....	11		
Ottawa.....	Dec. 6-12.....	2		
Do.....	Jan. 3-Feb. 6.....	2		
Toronto.....	Dec. 27-Jan. 2.....	1		
Do.....	Jan. 3-23.....	21		
Do.....	Feb. 6-27.....	4		
Trenton.....	Jan. 1-31.....	7		
Saskatchewan.....	Jan. 3-Feb. 13.....	39		
Do.....	Feb. 21-27.....	10		
Moose Jaw.....	Do.....	2		
Regina.....	Jan. 24-30.....	1		
Saskatoon.....	Feb. 14-20.....	1		
Ceylon:				
Colombo.....	Dec. 6-12.....	1		Port case.
Do.....	Jan. 3-9.....	2		Do

# CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued

Reports Received from December 26, 1925, to March 19, 1926—Continued

## SMALLPOX—Continued

Place	Date	Cases	Deaths	Remarks
<b>China:</b>				
Amoy.....	Oct. 25-Dec. 19.....	-----	1	
Do.....	Jan. 10-30.....	-----	-----	Present.
Antung.....	Dec. 7-20.....	2	-----	
Chungking.....	Nov. 15-Jan. 23.....	-----	-----	Do.
Foochow.....	Nov. 1-Jan. 23.....	-----	-----	Do.
Hankow.....	Nov. 14-Dec. 26.....	4	-----	
Do.....	Jan. 10-16.....	1	-----	
Hongkong.....	Nov. 22-Dec. 24.....	4	-----	
Do.....	Jan. 3-23.....	4	-----	
<b>Manchuria:</b>				
An-shan.....	Dec. 6-12.....	1	-----	
Do.....	Jan. 10-30.....	3	-----	South Manchurian Railway.
Changchun.....	do.....	10	-----	Do.
Dairen.....	Oct. 19-Dec. 27.....	73	15	
Do.....	Dec. 28-Jan. 17.....	27	6	
Changchun.....	Jan. 31-Feb. 6.....	4	-----	
Fushun.....	Jan. 17-23.....	1	-----	Do.
Harbin.....	Jan. 1-7.....	1	-----	
Kai-yuan.....	Jan. 10-30.....	4	-----	Do.
Kungchuling.....	Jan. 31-Feb. 6.....	1	-----	
Liao-yang.....	Jan. 17-23.....	1	-----	Do.
Mukden.....	Oct. 24-Nov. 15.....	1	-----	Do.
Do.....	Jan. 24-30.....	1	-----	Do.
Tieh-ling.....	do.....	2	-----	
Nanking.....	Nov. 21-Dec. 26.....	-----	-----	Present.
Do.....	Dec. 27-Jan. 9.....	-----	-----	Do.
Shanghai.....	Oct. 25-Jan. 2.....	37	36	
Do.....	Jan. 3-Feb. 6.....	39	77	Cases, foreign only.
Swatow.....	Nov. 22-Jan. 30.....	-----	-----	Prevalent.
Tientsin.....	Nov. 1-Dec. 19.....	2	-----	
Do.....	Jan. 23-30.....	1	-----	
<b>Egypt:</b>				
Alexandria.....	Dec. 3-31.....	5	2	
Do.....	Jan. 8-14.....	2	1	
Do.....	Jan. 20-Feb. 4.....	2	1	
<b>Estonia:</b>				
France.....	-----	-----	-----	November, 1925: Cases, 3.
<b>Gold Coast:</b>				
Great Britain:	September, 1925.....	14	4	September-October, 1925: Cases, 91.
England and Wales.....	-----	-----	-----	Nov. 15-Dec. 26, 1925: Cases, 790.
Hull.....	Dec. 27-Jan. 23.....	29	-----	Dec. 27-Jan. 30, 1926: Cases, 1,620.
Do.....	Feb. 7-20.....	6	-----	
Leeds.....	Jan. 14-Feb. 6.....	4	-----	
Newcastle-on-Tyne.....	Nov. 29-Dec. 19.....	6	-----	
Do.....	Dec. 27-Feb. 20.....	21	-----	
Nottingham.....	Nov. 22-Dec. 26.....	9	-----	
Do.....	Dec. 27-Jan. 9.....	2	-----	
Sheffield.....	Nov. 22-Dec. 12.....	7	-----	
Do.....	Dec. 20-26.....	3	-----	
Do.....	Dec. 27-Feb. 6.....	12	-----	
South Shields.....	Feb. 9.....	-----	-----	Reported present in several arm.
<b>Greece:</b>				
Athens.....	Nov. 1-30.....	17	1	Oct. 1-31, 1925: Cases, 16.
Do.....	Jan. 1-31.....	23	1	
<b>India:</b>				
Bombay.....	Nov. 8-Dec. 26.....	26	20	Oct. 18-Dec. 26, 1925: Cases, 19,472; deaths, 4,440.
Do.....	Dec. 27-Jan. 16.....	45	22	Dec. 27, 1925-Jan. 2, 1926: Cases, 3,869; deaths, 986.
Calcutta.....	Nov. 29-Dec. 26.....	48	25	
Do.....	Dec. 27-Jan. 23.....	129	63	
Karachi.....	Nov. 1-21.....	23	-----	
Do.....	Nov. 29-Dec. 5.....	4	2	
Do.....	Dec. 13-19.....	3	-----	
Do.....	Dec. 29-Jan. 30.....	21	9	
Madras.....	Jan. 24-30.....	4	1	
Rangoon.....	Oct. 25-Nov. 28.....	3	-----	
Do.....	Dec. 6-26.....	2	1	
Do.....	Dec. 27-Jan. 18.....	13	1	

# CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued

Reports Received from December 26, 1925, to March 19, 1926—Continued

## SMALLPOX—Continued

Place	Date	Cases	Deaths	Remarks
Indo-China				September-October, 1925: Cases, 201; deaths, 62. September, 1924: Cases, 78, deaths, 22.
Province—				
Annam	Sept. 1-Oct. 31	90	23	September, 1924: Cases, 8; deaths, 2.
Cambodia	do.	72	30	September, 1924: Cases, 16; deaths, 1.
Cochin China	do.	61	30	September, 1924: Cases, 43; deaths, 19.
Saigon	Dec. 21-27	2	1	
Do.	Jan. 1-17	2		Including 100 kilometers of surrounding country.
Tonkin	Dec. 2-Jan. 2	22		
Iraq				Sept. 6-Oct. 17, 1925: Cases, 81; deaths, 40.
Bagdad	Nov. 1-Dec. 26	19	15	
Do.	Dec. 27-Jan. 30	11	4	
Italy				Aug. 2-Oct. 31, 1925: Cases, 38.
Genoa	Jan. 21-Feb. 10	4		
Rome	Oct. 12-25	1		
Jamaica				Nov. 29-Dec. 26, 1925: Cases, 95. Dec. 27-Jan. 30, 1926: Cases, 138. Reported as alastrim.
Kingston	Nov. 29-Dec. 26	43		Reported as alastrim.
Do.	Dec. 27-Jan. 30	48		Do.
Japan:				
Taiwan	Nov. 11-Dec. 10	3		
Yokohama	Dec. 14-20	1		
Do.	Feb. 23	7		
Java:				
Batavia	Oct. 24-30	1		
Do.	Nov. 14-Dec. 25	7		
Buitenzorg	Nov. 29-Dec. 5	1		
Cheribon	Nov. 8-Dec. 12	2		
Kraksaan	Oct. 11-17	11		
Malang	Oct. 11-Jan. 2	3		
North Bantam	Oct. 4-17	4		
Pekalongan	Oct. 25-31	1		
Probolingo	Oct. 11-17	1		
Surabaya	Oct. 11-Dec. 23	633	104	
Do.	Dec. 27-Jan. 9	42	16	
South Bantam	Oct. 11-17	1		
Tegal	Oct. 4-10	9	1	
Latvia				December, 1925: Cases, 3.
Malta	Nov. 1-Dec. 31	21	3	
Do.				Jan. 1-31, 1926: Cases, 15.
Mexico				July-September, 1925: Deaths, 1,157.
Aguascalientes	Dec. 13-Jan. 2	4	3	
Do.	Jan. 3-30		7	
Do.	Feb. 14-27		4	
Durango	Dec. 1-31		1	
Do.	Jan. 1-31		2	
Guadaluajara	Dec. 27-Mar. 1		11	
Mexico City	Nov. 28-Dec. 5	1		Including municipalities in Federal District.
Do.	Jan. 3-Feb. 6	4		Do.
San Luis Potosi	Jan. 17-Feb. 27		33	
Tampico	Dec. 21-Jan. 2	1	1	
Do.	Jan. 2-Feb. 20	5		
Toreon	Nov. 1-Dec. 31		51	
Do.	Jan. 1-31		33	
Netherlands:				
The Hague	Jan. 30-Feb. 6	1	1	
Nigeria				Aug.-Oct., 1925: Cases, 211; deaths, 6.
Palestine:				
Hebron	Jan. 26-Feb. 1	2		
Persia:				
Teheran	July 23-Oct. 22		465	
Peru:				
Arequipa	Oct. 1-Dec. 31		2	
Poland				Nov. 1-28, 1925: Cases, 9.

# CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued

Reports Received from December 26, 1925, to March 19, 1926—Continued

## SMALLPOX—Continued

Place	Date	Cases	Deaths	Remarks
Portugal:				
Lisbon	Oct. 4-31	124		
Do.	Nov. 16-Dec. 27		60	
Do.	Nov. 14-Dec. 26	187		
Do.	Dec. 27-Jan. 31	40	23	
Oporto	Nov. 22-Dec. 19	2	3	
Do.	Dec. 27-Feb. 13	2	1	
Russia				May-June, 1925: Cases, 2,333.
Do.	July-August	760		
Siam				July 12-Sept. 5, 1925: Cases, 21; deaths, 6.
Bangkok	Dec. 20-25	3	1	
Do.	Dec. 28-Jan. 23	13	1	
Sierra Leone:				
Konno district	Dec. 16-31	5		
Spain:				
Madrid	Year 1925		18	
Malaga	Nov. 29-Dec. 5		2	
Do.	Dec. 27-Jan. 2		1	
Valencia	Dec. 20-26	1		
Do.	Dec. 27-Jan. 2	1		
Do.	Jan. 10-Feb. 6	9		
Straits Settlements:				
Singapore	Dec. 20-26	1		
Switzerland				June 28-Nov. 21, 1925: Cases, 62.
Lucerne	Oct. 1-Nov. 30	8		
Zurich	Dec. 27-Jan. 2	1		
Trinidad (West Indies):				
Port of Spain	Jan. 22	1		Imported.
Tunisia:				
Tunis	Nov. 21-30	2		
Do.	Dec. 11-31	10	1	
Do.	Jan. 1-20	5		
Union of South Africa:				
Cape Province	Jan. 17-23			Outbreaks
Orange Free State				Do.
Karuman district	Jan. 10-16			Do.
Ladybrand district	Dec. 27-Jan. 2			
Transvaal				Do.
Belfast district				Do.
Germiston district	Jan. 2-9			Do.
Pretoria district	Dec. 6-12			Outbreaks. In native compound.
On vessel	Feb. 21	2		Mexican steamer Montezuma, at Port of Ensenada, Mexico.

## TYPHUS FEVER

Algeria:				
Algiers	Nov. 1-Dec. 20	2		
Argentina:				
Rosario	Oct. 13-Dec. 31	2		
Bulgaria:				
Sofia	Sept. 1-Nov. 30	29	2	
Do.	Dec. 25-31	1		
Do.	Jan. 8-14	2		
Chile:				
Valparaiso	Nov. 20-Jan. 2		2	
China:				
Antung	Nov. 20-Dec. 27	5	1	
Do.	Jan. 4-10	1		
Hongkong	Dec. 27-Jan. 2	1		
Manchuria:				
Harbin	Dec. 17-Feb. 4	3		
Czechoslovakia	October-November	94		
Egypt:				
Alexandria	Jan. 8-14	1		
Cairo	Nov. 5-11	2	2	
Port Said	Nov. 19-25	1		
Finland				October, 1925: 1 case.
France	July-October	4		
Germany	Oct. 25-31	1		
Greece:				
Athens	Nov. 1-30	11	2	
Do.	Jan. 1-31	19	4	
Saloniki	Dec. 29-Jan. 4	1		
Hungary				November, 1925: Cases, 3.



# **CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued**

**Reports Received from December 26, 1925, to March 19, 1926—Continued**

## **TYPHUS FEVER—Continued**

Place	Date	Cases	Deaths	Remarks
Ireland:				
Cork County—				
Cork.....	Dec. 26-Jan. 1.....	2	—	
Do.....	Jan. 2-8.....	5	—	
Dunmanway.....	Nov. 14.....	1	—	
Galway County.....	Oct. 17.....	1	—	
Latvia.....	October-December.....	4	—	
Lithuania.....				September-October, 1925: Cases, 9; deaths, 1
Mexico.....				July-September, 1925: Deaths, 90.
Aguascalientes.....	Dec. 14-19.....	1	—	
Durango.....	Dec. 1-31.....	—	1	
Do.....	Jan. 1-31.....	—	1	
Guadalajara.....	Dec. 8-28.....	—	2	
Do.....	Dec. 29-Jan. 4.....	—	1	
Mexico City.....	Nov. 22-Dec. 26.....	145	—	Including municipalities in Federal District.
Do.....	Dec. 27-Feb. 20.....	58	—	Do
San Luis Potosi.....	Feb. 6-13.....	—	1	
Tampico.....	Dec. 21-Jan. 10.....	1	—	
Torreón.....	November, 1925.....	—	1	
Vera Cruz.....	Feb. 12.....	—	1	
Morocco.....	August-November.....	39	—	
Norway.....				November, 1925: Case, 1.
Palestine:				
Gaza.....	Dec. 18.....	1	—	
Jaffa.....	Dec. 1-7.....	1	—	
Nazareth.....	Nov. 3-9.....	1	—	
Safad.....	Nov. 24-30.....	1	—	
Tel-Aviv.....	do.....	1	—	
Peru:				
Arequipa.....	October-December.....	—	3	
Poland.....	Oct. 11-Nov. 14.....	142	16	
Rumania.....				July-August, 1925: Cases, 107; deaths, 15.
Russia.....				May-June, 1925: Cases, 10,680.
Do.....				July-September, 1925: Cases, 3,851
Turkey.....				
Constantinople.....	Jan. 24-30.....	3	—	
Union of South Africa.....				October, 1925. Cases, 88; deaths, 7 (colored). Cases, European, 7. December, 1925: Cases, 78; deaths, 9. Colored: Cases, 73; deaths, 9.
Cape Province.....	Oct. 1-31.....	63	5	Colored.
Do.....	Nov. 8-Dec. 31.....	47	8	
Do.....	Jan. 3-23.....	—	—	Outbreaks.
Middelburg district.....	Dec. 6-12.....	1	—	European. On farm.
Natal.....	Oct. 1-Dec. 5.....	1	—	
Durban.....	Jan. 3-16.....	1	—	
Orange Free State.....	Nov. 29-Dec. 5.....	23	1	
Do.....	Dec. 1-31.....	8	—	
Bethulia district.....	Dec. 6-12.....	—	—	Outbreaks.
Bothaville district.....	do.....	—	—	Native. On farm
Transvaal.....	Oct. 1-31.....	1	—	
Do.....	Dec. 1-31.....	18	—	
Bloemhof district.....	Dec. 27-Jan. 2.....	—	—	Outbreaks. On farm.

## **YELLOW FEVER**

Gold Coast.....	September-October.....	2	1	
Nigeria.....	August-October.....	3	2	
Senegal.....	November, 1925.....	3	2	



TREASURY DEPARTMENT

# PUBLIC HEALTH REPORTS

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## SPECIAL ARTICLES

Some Community Responsibilities of Hospitals  
Recent Court Decisions Relating to the Public Health



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1926

## UNITED STATES PUBLIC HEALTH SERVICE

HUGH S. CUMMING, *Surgeon General*

### DIVISION OF SANITARY REPORTS AND STATISTICS

Asst Surg. Gen. B. J. LLOYD, *Chief of Division*

The PUBLIC HEALTH REPORTS are issued weekly by the United States Public Health Service through its Division of Sanitary Reports and Statistics, pursuant to acts of Congress approved February 15, 1893, and August 14, 1912.

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# PUBLIC HEALTH REPORTS

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## COMMUNITY RESPONSIBILITY OF HOSPITALS <sup>1</sup>

By E. H. LEWINSKI-CORWIN, Ph. D., Director, Hospital Information Bureau of the United Hospital Fund of New York; Consultant in Public Health, United States Public Health Service

The theses of this paper apply to community hospitals. By the term "community hospital" is meant a hospital in which under the law no profit can accrue to the hospital corporation. If the financial sheet of such a hospital shows no deficit, and even if it shows a surplus, the hospital does not cease to maintain its fundamental character. In spite of the fact that it does not have to appeal to the community for funds, having either large endowments or sufficient income from its operation, it continues to fulfill its basic purpose, it administers charitable trust funds left for the benefit of the community, and it enjoys exemption from taxation.

At the very outset I desire to state that, in the present discussion of the community responsibility of hospitals, only certain phases of this responsibility will be considered. A hospital's responsibilities are as numerous as are its social ramifications, and they imply not only the obligations of the hospital to the community, but also the reciprocal relation of the community to the hospital. In a brief paper all these matters can not be discussed adequately. I will therefore limit myself to the consideration of a few points.

### 1. POLICY

One of the fundamental obligations of a group constituting the board of trustees of a hospital is the formulation of an adequate community policy. Many a hospital plan has failed because of the lack of an intelligent policy on the part of those responsible for building the hospital. The formulation of the policy depends on many factors and is often crippled by self-imposed limitations.

The first requirement of a hospital policy is a knowledge of the morbidity prevalence in the community, its extent and general character. The second requirement is a knowledge of the extent and character of hospital and other private and public health services already available, as well as of the housing and other social conditions in the community. A third requisite for the formulation of the policy is a definite ascertainment of how much of the bed capacity

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<sup>1</sup> Read before the meeting of the American Hospital Association at Louisville, Ky., Oct. 23, 1925.

should be assigned to private, how much to semiprivate, and how much to ward services.

The plans should be a part of broad social engineering and should not be dictated by consideration of immediate contingency. A statesmanlike attitude should likewise be taken with reference to providing for out-patient, convalescent, and chronic patients.

The relations of the hospital to the patients and their families, to its own medical staff, to its nursing staff, to the officers of administration, and to the various social and scientific agencies in the community, as well as to the medical profession generally, are important considerations in the formulation of a policy.

## 2. DISCHARGE OF IMPLIED MORAL OBLIGATION

There exists a general tacit understanding on the part of the public that, on assuming their office, hospital trustees have accepted a moral obligation with respect to the community and to those who come to the hospital for treatment. A part of this tacit understanding which exists and which the average person takes for granted, is the assumption that the medical men associated with the hospital are selected on the basis of merit and for no other reasons, that the resident staffs of physicians and nurses as well as other employees are well supervised, and that no negligence of any kind, no discourtesy, and no discrimination are tolerated. The public not only assumes these things but has a right to these assumptions, and it is the responsibility of the hospital to see that this tacit trust is properly discharged.

## 3. HIGH TYPE OF PERFORMANCE

The mere existence of a hospital with all its equipment and staff does not create a community hospital; it merely affords means for aggregating the sick. Most of the patients could be treated by the same physicians in their homes. The important feature which differentiates the treatment in the hospital from that in the patient's home is the opportunity it offers for organized and supervised team work, for critical analysis of the performance, and for the advancement of the standards of medical education and practice in the community. This assurance to the community that the practice of medicine in the hospital is of the highest type attainable and that it sets the pace and promotes the best type of general practice in the community constitutes the civic responsibility of the hospital, which is of equal importance with that of the actual care of the sick within the hospital.

Through the American College of Surgeons the medical men themselves, to their everlasting credit, created the machinery for control of their work and for raising the standards of performance. It is a



social obligation devolving upon the trustees to strengthen by every possible means the efforts of the American College of Surgeons so that the minimum standards which have been formulated by the College should not become a mere parade uniform qualifying the hospital for indorsement by the College, but, rather, a real, living, keen appreciation of community responsibility. The proceedings of the medical and surgical conferences in the hospital, the results of performance, and the "calamity book" of the hospital should be of as much vital importance to the trustees in the discharge of their community responsibility as are the financial balance sheets.

#### 4. BROADER HOSPITAL OPPORTUNITIES FOR PHYSICIANS

With regard to medical practice, the hospital's obligation is not limited to the physicians and surgeons on its own staff. Medicine has become a highly progressive science, requiring many ancillary departments for its practice, and the hospital has a community responsibility of supplying the physicians in its community with opportunities for periodic contact with the best hospital practice. In another connection I have outlined a plan whereby, it seems to me, it becomes feasible for a larger number of physicians in the community to acquire hospital connections than is the case at the present time. I am not arguing for "open" hospitals, but for a method of procedure whereby the so-called "closed" hospitals can offer hospital opportunities to a larger number of physicians and can utilize more generally their facilities for diagnostic service and for teaching.<sup>2</sup>

The enormous increase in the number of hospitals has made it possible for most, if not all, graduates of medical schools to obtain internships if they so desire. In the large majority of instances advantage is taken of this opportunity, although only a few States make a year's hospital residence obligatory for licensure. In some instances I believe an M. D. degree is obligatory. This, to my mind, is a very desirable requirement, and I believe that all the States should go a step further and, in cooperation with the American Medical Association, certify hospitals for interne training, so that the year or two spent by an interne in a hospital will really be a year of work under competent direction and not mere drifting. The responsibility of the hospital in this field of training is increasingly recognized and should be discharged with ready cooperation in the interest of the treatment of patients as well as of the training of physicians.

#### 5. DELIMITATION OF RESPONSIBILITY FOR NURSE TRAINING

Aside from food service no other branch of hospital administration is so frequently an object of criticism by the public as that of nursing. This criticism is often unjust, and patients are frequently not willing

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<sup>2</sup> The Modern Hospital, November, 1925, Vol. XXV, No. 5.

or unable to realize the difficulties under which the hospitals labor in supplying an adequate amount of competent and courteous nursing service. The criticism nevertheless persists and is, in certain ways, well founded. The hospital may not be responsible for certain deficiencies, but the community does not understand the difficulties under which the hospital labors in this connection and which are beyond its control. Institutions should make an effort to set the problems of the nursing situation clearly before the public and to define the extent of their own community obligation in the matter.

With the enormous increase in hospital facilities, on the one hand, and the expansion of opportunities which have opened themselves for women in all branches of life and work, on the other hand, the difficulty of obtaining an adequate supply of the proper kind of women to do nursing is constantly becoming greater. Furthermore, the just demands of nurses for good living quarters, proper training, and shorter hours of work, and the onerous and often impractical restrictions of some State educational authorities, are making the situation still more difficult in and outside of hospitals.

The forces governing the demand and supply of nurses are beyond the control of hospitals. The hospitals should make the community recognize this fact. The discharge of its civic obligation by the hospital with respect to nurses and nursing care is fully met when it provides the best facilities possible for the training of qualified nurses, by inculcating in them a spirit of genuine service, and by making the living and working conditions for them in the hospital as pleasant and conducive to the best results as possible.

In New York State we are by law allowed to train another group of nurses called "nurse attendants." Their educational requirements for admission to the course are lower than are the requirements in the case of nurses and their training is of nine months' duration. Not much has been done as yet by the hospitals in training this type of attendant. I believe, however, that the exigencies of the situation may call for the training of this subsidiary type of nurse in larger numbers in order that the nurses may be relieved of certain types of service in and outside the hospitals. The hospitals should take greater interest in the training of the nurse attendant as a part of their responsibility to the community for the training of caretakers of the sick.

To summarize this part of my statement, I will reformulate it by saying that with regard to nursing care the community obligation of the hospital is to provide clinical opportunities for the training of such type or types of caretakers of the sick as the combined wisdom of the organized medical profession and of the educational specialists may determine. How best technically the instruction in nonclinical subjects should be carried out is not a matter of vital concern for the

hospitals; their duty is to see that the services of the pupil nurses are properly supervised, that they are discharged with care and devotion to the task, that the patients receive an adequate amount of nursing care, and that kindness permeates the relations between nurses and patients.

#### 6. AVAILABILITY OF HOSPITAL FACTS

The community is entitled to information with regard to the services performed by the hospitals and the costs involved in furnishing such services. This information is furnished through the annual report, which, as a rule, is inadequate in that it usually deals somewhat too much with "the dry bones of housekeeping and the hotel register" and very little with the vital thing—the medical and surgical services rendered. I do not advocate the publication in an annual report, which is intended chiefly for the laity, of detailed medical statistics, but certain facts properly interpreted as to what the hospital has accomplished during the year are essential. The more the community is apprised of the real problems and achievements of its hospitals the more likely it is to take an intelligent interest in them.

#### 7. NEED OF MORBIDITY STATISTICS

Medical statistics, however, ought to be made available in some form or other for the benefit of medical science and demography, and by making these available the hospital would be discharging a very important community responsibility. When one considers that there are upwards of half a million hospital beds in the United States, and that probably about 7,000,000 persons are cared for in the hospitals in this country annually, it will be realized what an enormous contribution the hospitals could make to the understanding of the problem of disease in its various ramifications, if in some way the cumulative experience of these hospitals could be made available. As it is, this vast and important reservoir of information is not utilized except, perhaps, in a limited way by each institution for its own immediate purposes.

In larger cities central bureaus for the collection of such statistics could be easily organized. Such central bureaus of information would give the hospitals of the community a great deal of valuable information concerning hospital needs, problems, and achievements. Moreover, a central statistical office would be in a position to render valuable service to member hospitals at a cost lower than if the hospital should attempt to do the work independently. Furthermore, it would furnish them with a basis for vital comparisons prepared on a uniform basis. In making comparisons it is essential that statistical units be strictly comparable. Hospital mortality affords a good

example of using comparative statistics with a grain of salt. Some hospitals do not include in their mortality rate patients dying within 24 or 48 hours after admission, while others do. In the case of surgical mortality and the statistics of end-results, the latitude is much greater. It is arbitrary to set a limit of time within which a death following an operation is ascribable to it or to say that the end-result is to be judged by developments within such and such a period. Arbitrary and erroneous as some of the assumptions may be in the case of surgical statistics, they would become much more amenable to comparisons if all were subject to the same degree of error, i. e., if there existed a uniform rule of statistical procedure. Central statistical editing is more likely to bring about comparability than scattered endeavors. There is evidently a need of this kind of service, as evidenced by statements by eminent surgeons. Dr. Harvey Cushing, in one of his annual reports as surgeon in chief of the Peter Bent Brigham Hospital in Boston, discussing the surgical experience of his hospital and the desirability of comparable figures from other hospitals states:

It would be an exceedingly desirable thing if \* \* \* steps were taken to systematize these matters and to inaugurate a uniform method of presenting the surgical reports from all major hospitals in the country. If this were done our hospital reports might become of greater clinical value for reference than many of the occasional papers in medical literature, and I see no reason why they should be surrendered, as many of them are, to the administrative activities of the institution alone, which, after all, are merely incidental to the main purpose of the institution—the professional care of the patients.<sup>3</sup>

Dr. William J. Mayo, in an address before the Clinical Congress of the American College of Surgeons at Montreal in 1920, stressed the value of the "study of the mass of surgical material." He says:

In order to secure a perspective which will not be distorted by the minutiae the mass rather than the details should be considered. Such an investigation will sometimes point out a way by which an intensive study of outstanding failures may be made to yield valuable suggestions.<sup>4</sup>

Dr. Eugene H. Pool, in a discussion of end-results before the Clinical Congress of the American College of Surgeons at Boston in 1922, said:

The knowledge of the results of types of operations and the amenability or resistance of various lesions to surgical efforts is of inestimable value to the surgeon. The most effective, far-reaching instruction is derived from the grouping and analysis of an accumulated mass of these cases.<sup>5</sup>

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<sup>3</sup> Sixth Annual Report (for the year 1919), Peter Bent Brigham Hospital, Boston, p. 73.

<sup>4</sup> Surgery, Gynecology and Obstetrics, February, 1921, pp. 97-102.

<sup>5</sup> Bulletin, American College of Surgeons, Vol. VII, No. 2, January, 1923, p. 15.

## 8. PROVISIONS FOR INSTITUTIONAL CONVALESCENCE AND FOR THE RECLAMATION OF THE "CHRONICS"

Through the social service department, the hospital gives effective evidence that its interest in the patient is not confined to his progress while in the institution. This responsibility should be made to extend a little further. Proper convalescence has been recognized as an indispensable part of the care of the sick. As Dr. John Bryant has pointed out on the basis of a vast experience, "The average patient who has been sufficiently ill to require the average length of stay of three weeks in a hospital for acute diseases, has also been sufficiently ill to require an additional average period of three weeks under observation in a convalescent home."<sup>6</sup> Very often the good accomplished in the hospital is wholly or partially undone by the lack of proper convalescent care.

The extension of institutional convalescence to those who, for one reason or another, can not obtain proper convalescent care in their own homes will be directly or indirectly provided by the hospitals which take a real interest in their patients. Ample convalescent facilities make it possible for the hospitals treating acute conditions to discharge patients earlier, in this way increasing, so to speak, the effective hospital facilities of the community, and providing care in an atmosphere more conducive to recovery and at a lower cost than is possible in an acute hospital. The movement for institutional convalescence is gaining momentum.

This can not be said, however, of provision for patients suffering from chronic ailments, a sadly neglected phase of our hospital policy. The existing hospitals for the care of people afflicted with ailments generically and dismally known as chronic are too few and, with several notable exceptions, not conducted on the highest plane of scientific medicine. In many instances these hospitals are designed for custodial care of hopeless cases. There is need for institutions of this type; but what is urgently needed in addition are hospitals where chronically but not hopelessly ill patients can be salvaged and reclaimed—institutions similar to the sanatoria for the treatment of tuberculosis. Many of the chronic patients are not adequately cared for in the out-patient departments, to which they apply, and many others fall prey to various charlatans or cults. The sufferers from the various rheumatic diseases, from cardiac and vascular troubles of various kinds and degrees, those with mucous colitis and other gastro-enteric diseases who can not carry out the required mode of life in their homes, those with affections of the neuromuscular system, with leg ulcers and renal affections, orthopedic cases, and many others require the facilities of such special institutions. Boas, Rappleye, and others

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<sup>6</sup> Boston Medical and Surgical Journal, Jan 25, 1923.

have called attention to the need of study of the progress of chronic diseases; and these hospitals, when properly manned, will offer an opportunity for such study. The hospitals can hardly shirk their community responsibility in providing for the adequate study and care of this huge group of sufferers.

#### 9. PROVISION FOR CONTAGIOUS DISEASE ISOLATION

There are only two more points which I should like to bring up in this limited paper. One is the lack of provision, in the smaller communities, of isolation units in the hospitals to take care of emergency cases of contagious disease. A tragic incident was recently reported by the New York State Department of Health.<sup>7</sup> A child was taken severely ill with sore throat in the country near a small city, and the mother, who was a summer resident, brought the child to the hospital. The admitting physician recognized the case as diphtheria and refused to admit it. The child was already in a moribund condition, and the suggestion was made that it be taken to the office of the health officer of the town. When finally the child was brought to the office of the physician it was dead. The report of the health department contains the following comment on the case: "Just what, if any, moral obligation rests upon a hospital in the face of such an emergency is a question of judgment which could be determined only with all the facts at hand."

The report also points out what seems to be a clear community responsibility on the part of the hospital: "There should be provided in every city, by some means, a place in which cases of communicable disease may be isolated and cared for in emergencies. If there is a general hospital, this would seem to be the logical place."

#### 10. PARTICIPATION IN HEALTH PROMOTION

With the modern emphasis upon prevention of disease, the hospital can not afford to abstain from an active and direct part in the health-promotion movement. The idea of periodic medical examinations of well or apparently well persons is taking root, and the hospital would be discharging a very important function and community responsibility if it placed its facilities at the disposal of this important health crusade.

As I stated in the beginning, within the compass of a short paper only a limited number of community responsibilities can be touched upon. From this brief list of the long array of community responsibilities of the hospitals, one can easily draw the deduction that there is hardly any other institution in the social structure that has so many community responsibilities of so vital a character as has the modern hospital.

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<sup>7</sup>Health News, New York State Department of Health, Vol. II, No. 37, Sept. 14, 1925.

## PUBLIC HEALTH ENGINEERING ABSTRACTS

The following abstracts of current articles relating to sanitary engineering are taken from Public Health Engineering Abstracts, prepared by sanitary engineers of the Public Health Service and of the State departments of health, and other persons, and issued by the Division of Domestic Quarantine. In presenting these abstracts no attempt is made to cover completely the entire field of literature on the subject, and only those abstracts will be printed here which are believed to be of especial interest to public health workers.

The heat drying of sludge at the Baltimore Sewage Works. C. E. Keefer. *Engineering News-Record*, vol. 96, No. 6, February 11, 1926, pp. 238-240. (Abstracted by J. K. Hoskins.)

The experience of Baltimore in converting sludge into fertilizer base over a period of 6½ years by contract with an operating company is narrated in detail.

The drying plant consisted of two heat driers, conveyors, grinders, screens, and accessories. The drier was a rotary, boiler-plate kiln 6 feet in diameter and 40 feet long, with stationary shelves on the interior. A hand-fired furnace at the inlet end supplied heat to the rotating kiln.

The plant was first operated by a private company under a five-year contract beginning February 15, 1916, the city to deliver air-dried sludge to the contractor and to receive 81 cents per ton for the heat-dried product. The net loss to the contractor, until the plant was destroyed by fire in 1917, was \$2.23 per ton. After the fire the net loss per ton of heat-dried sludge was 50 cents. No difficulty was encountered in disposing of the product to fertilizer companies who used it as a base for commercial fertilizer.

Because of these losses a modified agreement was entered into at the end of the first contract whereby the city should pay all operation deficits. Losses continued and the city finally shut down the plant in January, 1923. Detailed financial statements and quantities of sludge treated are presented in tabular form.

During 1922, farmers hauled away 6,272 cubic yards of air-dried sludge, which cost the city to load on their wagons 15 to 20 cents per ton as compared with \$2.69 a ton for heat-drying it.

The experience indicates that heat drying was an expensive method of sludge disposal for Baltimore. The high costs are attributed to excessive overhead expenses, cost of hauling the material to its destination, sand and gravel content of the air-dried sludge, and its low nitrogen (2 per cent) content.

Opinion and decision of the railroad commission of Wisconsin in re investigation of pollution of Flambeau River at Park Falls. (W. P. 234). Decided February 20, 1926. 64 pages. Published by the commission. (Abstracted by J. K. Hoskins.)

This excellent publication summarizes the evidence presented before the commission in regard to stream pollution by wood pulp and paper mill wastes, and its effect on fish life, together with specific evidence in the case and the decision of the commission.

After citing the laws and court decisions governing the subject of stream pollution, the general or basic evidence presented at the hearings is reviewed and then summarized as follows:

1. The discharge of industrial waste into certain streams is the only practical method of ultimate disposal in many cases, and constitutes a necessary and proper use of the stream, but only provided that the dilution is so great as not to be materially objectionable as a menace to public health or interference with the natural aquatic life of the stream.

2. Factors affecting fish life may be summarized as follows:

- (a) Reduction of the dissolved oxygen in the water of a stream to less than 2 parts per million for any material length of time results in death or migration of practically all fish.

- (b) Some wastes, such as gas-plant wastes, mine drainage, and certain chemical wastes are toxic or poisonous to fish.

- (c) Plant growth is necessary for fish life, and fish may seek other habitat due to change in the plant or aquatic life of the stream.

- (d) Pollution is more deleterious to young fish, particularly just after absorption of the food sac, than to adult fish.

- (e) The discharge of large quantities of suspended matter forms sludge beds in the stream and interferes with spawning and the spawn. It is also possible that certain fiber wastes accumulate in the gills of fish and cause deleterious effects.

3. Nearly all wastes, either through chemical or biological reaction, cause reduction of the dissolved oxygen of the stream, industrial wastes generally having a greater oxygen demand than domestic sewage.

4. During warm weather biological oxidation is more rapid than in cold, so that the oxygen demand of the waste is greater although the actual amount of oxygen available is less because warm water retains less oxygen in solution. Furthermore, the tolerance of fish is less in warm than in cold water and their oxygen requirements are greater.

5. When the dissolved oxygen of a stream is depleted, green plants and other classes of aerobic life die and anaerobic organisms, such as worms and lower animal life, prevail.

6. A stream tends to purify itself by natural processes and will ultimately return practically to normal if the concentration of the wastes is not too great and sufficient time elapses before there is additional pollution.

7. While some streams in Wisconsin are badly polluted, it is reasonably practicable so to control this pollution as not materially to affect the aquatic life of the stream.

The paper industry in Wisconsin is next discussed, the pulping process described and the nature and extent of wastes resulting from the various processes as well as methods of recovery of by-



products is considered. The specific evidence relating to the Park Falls case is then reviewed in detail, including the analytical data. The findings are next presented. The commission, recognizing that no practical method of treatment of sulphite waste exists, recommends that the paper industry organize its various units and maintain "a sustained, systematic, and scientific search for the solution of the problem of the disposal of the waste materials from the pulp and paper mills, in cooperation with such State and Federal agencies as may be available." Jurisdiction is reserved to enter an affirmative order for the period of one year.

A bibliography of papers and publications offered in evidence is appended, together with a list of 39 papers having a direct bearing on the problems involved.

**How nature destroys microbes in water.** Fernand Arlong, M. D. *Fire and Water Engineering*, vol. 78, No. 24, December 9, 1925, pp. 1283-1284 and 1317-1318. (Abstracted by F. J. Moss.)

Pollution of the soil, the air, and the waters is almost continuous, but spontaneous combustion takes place, without which life would become impossible in a medium infected by the microbes of putrefaction and of a wide range of diseases. Bacteriologists, following Pasteur, Chauveau, and others have given to this phenomenon of the destruction of bacteria, that is, the dissolution of the microbes, the term "bacteriolysé" or "bacteriolucid."

The natural destruction of microbes has been attributed to the light of the sun, and more particularly to the ultra-violet rays and the calorific rays. Desiccation, by the oxygen in the air, and mechanical action have also been considered factors in the destruction of microbes. Apart from the physical agents of destruction, microbes are found that may attack other microbes and destroy them.

In 1917 d'Herelle filtered the discharges from a dysentery patient in convalescence through a Chamberland porcelain filter and demonstrated that the addition of a few drops of this filtered solution prevented the development of dysentery bacillus in a cup of culture. This destruction of the culture is what is commonly termed "the d'Herelle phenomenon." The virus of d'Herelle is so small that it will pass through the closest porcelain filter; and the failure of a culture to develop or the destruction of the visible microbes is the only visible evidence we have of its development. Since the virus produces the destruction of the microbe which it devours, it is now commonly designated as the "bacteriophage."

In the cure of certain diseases, such as dysentery, paratyphoid, typhoid fever, and the like, the bacteriophage plays an important part in destroying the bacteria which produce these diseases.

A number of experiments were performed relative to the destruction of dangerous microbes in water by the bacteriophage principle.

In these experiments several samples of the water were filtered through porcelain filters L 3, and then a few drops of this water were added to the microbic cultures. As soon as the filtered solution became empowered with the bacteriocidal power the cultures would not develop. It was found that all waters do not possess an equal bacteriocidal power, and certain waters are without any particular power of this kind. Still other waters exercise a very marked destructive action with regard to some particular microbe.

The different waters which were examined and their bacteriocidal power are noted.

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### COURT DECISIONS RELATING TO PUBLIC HEALTH

*Occupational diseases not compensable under workmen's compensation act.*—(Oklahoma Supreme Court; *St. Louis Mining & Smelting Co. et al. v. State Industrial Commission et al.*, 241 P. 170; decided September 15, 1925.) Under the Oklahoma Workmen's Compensation Act an "injury or personal injury" meant "only accidental injuries arising out of and in the course of employment and such disease or infection as may naturally result therefrom." The supreme court stated that "the basis of a claim for compensation must be a casualty occurring without expectation or foresight," and held that occupational diseases were excluded as a basis of compensation. The disease in question in the instant case was anthracosis, commonly referred to as coal miner's disease.

*County-tax levy for tuberculosis fund upheld.*—(Oklahoma Supreme Court; *Simmons v. Stuckey*, County Treasurer, et al., 241 P. 124; decided October 27, 1925.) In an action in which it was alleged that certain items of tax included in a county-tax levy were illegal and erroneous, one of the items in dispute was that of 0.09 mill for a tuberculosis fund. The court held this item to be fully authorized by the legislature under the provisions of section 8970 of the Compiled Oklahoma Statutes, 1921.

*Requirement of permit preceding installation or alteration of plumbing upheld.*—(California First District Court of Appeal; *Ex parte Nichols*, 241 P. 399; decided October 2, 1925.) In this, a habeas corpus proceeding, the petitioner was convicted on a charge of having violated a plumbing ordinance of the city and county of San Francisco in that he had installed and changed a sewer pipe on certain premises without first obtaining a permit as required. He was sentenced to pay a fine, and in default of such payment to be imprisoned. Having been committed, he sought his release on habeas corpus. In its opinion the court stated as follows:

No provision being made by the charter [of the city and county of San Francisco] regulating the installation or alteration of such [sewerage] systems in premises privately owned, or for the granting of permits therefor or inspection by the authorities of such work either during its progress or upon completion, and such regulation being within the powers granted to the supervisors, the requirement that a permit therefor be granted by the board of health, and that there be an inspection thereof by officers duly authorized, is not in conflict with the powers of the board of public works, or a delegation to the board of health of the power to legislate as to the terms or conditions upon which a permit should issue, but a proper preliminary requirement in order that it might be ascertained that the work or alteration proposed would be in accordance with the sanitary regulations of the board of supervisors, and might at the proper time be inspected to the end that the public health be preserved and protected.

*Resolutions in connection with county sanitation district held published according to law.*—(California Supreme Court; County Sanitation District No. 4 of Los Angeles County *v.* Payne, Auditor, 241 P. 264; decided November 20, 1925.) A county sanitation district made an application for a writ of mandamus to compel the county auditor, who was ex officio auditor of the sanitation district, to sign certain bonds. The auditor claimed that he was justified in withholding his signature from said bonds for the reason that the publication of certain resolutions in connection with the sanitation district was not in accordance with law. The supreme court decided that the auditor should affix his signature to the bonds, holding as follows:

(1) That the publication of a resolution, by a county board of supervisors of its intention to create a sanitation district, in a newspaper of general circulation within the proposed district but not actually printed and published in the proposed district, there being no newspaper printed and published in the proposed district, was a sufficient publication and a compliance with the provisions of section 2 of chapter 250, Laws of 1923.

(2) That the publication of a resolution, calling an election regarding bonded indebtedness of a sanitation district, in 5½-point type with a 6-point slug was a substantial compliance with section 4459 of the Political Code, which required type not smaller than nonpareil (6 point).

## DEATHS DURING WEEK ENDED MARCH 13, 1926

*Summary of information received by telegraph from industrial insurance companies for week ended March 13, 1926, and corresponding week of 1925. (From the Weekly Health Index, March 17, 1926, issued by the Bureau of the Census, Department of Commerce)*

	Week ended Mar. 13, 1926	Corresponding week, 1925
Policies in force.....	63, 606, 360	58, 976, 770
Number of death claims.....	14, 724	12, 722
Death claims per 1,000 policies in force, annual rate..	12. 1	11. 2

*Deaths from all causes in certain large cities of the United States during the week ended March 13, 1926, infant mortality, annual death rate, and comparison with corresponding week of 1925. (From the Weekly Health Index, March 17, 1926, issued by the Bureau of the Census, Department of Commerce)*

City	Week ended Mar. 13, 1926		Annual death rate per 1,000 corresponding week, 1925	Deaths under 1 year		Infant mortality rate, week ended Mar 13, 1926 <sup>2</sup>
	Total deaths	Death rate <sup>1</sup>		Week ended Mar. 13, 1926	Corresponding week, 1925	
Total (70 cities).....	9,008	17.7	15.0	1,107	1,037	<sup>3</sup> 90
Akron.....	38			4	10	43
Albany <sup>4</sup> .....	42	18.6	17.7	1	6	21
Atlanta.....	69			11	8	
White.....	31			7		
Colored.....	38	( <sup>5</sup> )		4		
Baltimore <sup>4</sup> .....	256	16.8	17.0	26	26	76
White.....	175			13		46
Colored.....	81	( <sup>5</sup> )		13		211
Birmingham.....	108	27.4	21.5	11	9	
White.....	44			2		
Colored.....	64	( <sup>5</sup> )		9		
Boston.....	272	18.2	17.3	39	29	110
Bridgeport.....	44			5	5	85
Buffalo.....	172	16.7	15.0	21	26	88
Cambridge.....	35	15.3	11.3	4	3	66
Camden.....	57	23.1	15.8	9	6	152
Canton.....	17	8.3	9.8	1	5	22
Chicago <sup>4</sup> .....	944	16.4	14.2	126	116	112
Cincinnati.....	129	16.4	16.2	12	12	75
Cleveland.....	225	12.5	12.6	30	40	78
Columbus.....	65	12.1	17.3	3	8	28
Dallas.....	57	15.4	11.6	10	8	
White.....	43			10		
Colored.....	14	( <sup>5</sup> )		0		
Dayton.....	50	15.1	13.9	5	5	79
Denver.....	109	20.2	16.3	6	4	
Des Moines.....	41	14.3	13.3	3	5	59
Detroit.....	454	19.0	12.5	99	57	150
Duluth.....	17	8.0	12.3	0	3	0
El Paso.....	36	17.9	15.4	8	7	
Erie.....	28			5	9	95
Fall River <sup>4</sup> .....	27	10.9	16.2	1	12	15
Flint.....	38	15.2	7.2	6	7	99
Fort Worth.....	48	16.4	12.0	6	4	
White.....	45			5		
Colored.....	3	( <sup>5</sup> )		1		
Grand Rapids.....	43	14.6	12.2	9	1	130
Houston.....	53	16.8	15.2	9	8	
White.....	32			5		
Colored.....	21	( <sup>5</sup> )		4		
Indianapolis.....	114	16.6	17.7	15	15	110
White.....	96			10		84
Colored.....	18	( <sup>5</sup> )		5		275
Jacksonville, Fla.....	52	25.8	17.4	5	4	101
White.....	26			3		98
Colored.....	26	( <sup>5</sup> )		2		114
Jersey City.....	128	21.2	12.4	13	5	92
Kansas City, Kans.....	43	19.3	15.7	2	6	35
White.....	33			2		42
Colored.....	10	( <sup>5</sup> )		0		0
Kansas City, Mo.....	117	16.6	19.9	14	24	
Los Angeles.....	250			15	21	42
Louisville.....	104	18.0	16.1	15	8	129
White.....	78			11		110
Colored.....	26	( <sup>5</sup> )		4		251
Lowell.....	30	14.2	20.3	2	7	37
Lynn.....	33	16.7	10.1	2	1	50

<sup>1</sup> Annual rate per 1,000 population.

<sup>2</sup> Deaths under 1 year per 1,000 births. Cities left blank are not in the registration area for births.

<sup>3</sup> Data for 65 cities.

<sup>4</sup> Deaths for week ended Friday, Mar. 12, 1926.

<sup>5</sup> In the cities for which deaths are shown by color, the colored population in 1920 constituted the following percentages of the total population: Atlanta 31, Baltimore 15, Birmingham 39, Dallas 15, Fort Worth 14, Houston 25, Kansas City, Kans., 14, Louisville 17, Memphis 38, Nashville 30, New Orleans 26, Norfolk 38, Richmond 32, and Washington, D. C., 25.

*Deaths from all causes in certain large cities of the United States during the week ended March 13, 1926, infant mortality, annual death rate, and comparison with corresponding week of 1925. (From the Weekly Health Index, March 17, 1926, issued by the Bureau of the Census, Department of Commerce)—Continued*

City	Week ended Mar. 13, 1926		Annual death rate per 1,000 corresponding week, 1925	Deaths under 1 year		Infant mortality rate, week ended Mar. 13, 1926
	Total deaths	Death rate		Week ended Mar. 13, 1926	Corresponding week, 1925	
Memphis.....	74	22.1	20.6	5	7	-----
White.....	37			3		-----
Colored.....	37	( <sup>5</sup> )		2		-----
Milwaukee.....	102	10.6	11.7	17	16	79
Minneapolis.....	113	13.8	13.8	12	20	67
Nashville.....	68	20.0	26.0	2	9	-----
White.....	40			1		-----
Colored.....	28	( <sup>5</sup> )		1		-----
New Bedford.....	25	10.9	17.4	4	8	70
New Haven.....	59	17.2	11.7	7	5	96
New Orleans.....	170	21.4	22.5	18	20	-----
White.....	103			10		-----
Colored.....	67	( <sup>5</sup> )		8		-----
New York.....	2,183	19.4	14.3	227	176	92
Bronx Borough.....	269	16.1	11.5	19	17	63
Brooklyn Borough.....	743	17.6	12.4	84	57	85
Manhattan Borough.....	921	24.7	18.8	93	80	103
Queens Borough.....	186	13.6	9.7	22	18	100
Richmond Borough.....	64	24.1	20.4	9	4	158
Newark, N. J.....	135	15.6	12.4	14	6	67
Norfolk.....	49			6	7	112
White.....	23			2		69
Colored.....	26	( <sup>5</sup> )		4		199
Oakland.....	51	10.5	12.3	8	9	93
Oaklahoma City.....	33			6		-----
Omaha.....	61	15.0	11.8	8	5	84
Paterson.....	48	17.7	13.6	7	7	122
Philadelphia.....	930	24.7	16.1	85	70	113
Pittsburgh.....	208	17.2	25.3	30	51	100
Portland, Oreg.....	51	9.4	11.8	3	4	31
Providence.....	87	16.9	12.5	2	14	17
Richmond.....	68	19.0	15.7	4	5	50
White.....	40			3		50
Colored.....	28	( <sup>5</sup> )		1		35
Rochester.....	166	27.3	11.9	9	7	72
St. Louis.....	267	16.9	16.4	11	20	-----
St. Paul.....	50	10.6	11.7	6	5	53
Salt Lake City.....	25	10.0	13.5	2	4	28
San Antonio.....	65	17.1	16.6	8	6	-----
San Diego.....	46	22.6	22.6	2	1	42
San Francisco.....	103	15.2	13.7	14	10	84
Schenectady.....	19	10.7	15.7	2	4	58
Seattle.....	75			6	3	56
Somerville.....	23	12.1	17.9	2	4	52
Spokane.....	40	19.2	17.2	3	5	70
Springfield, Mass.....	43	15.8	13.6	8	3	110
Syracuse.....	89	25.5	12.9	9	11	114
Tacoma.....	26	13.0	6.5	2	0	47
Toledo.....	76	13.8	15.2	9	11	87
Trenton.....	49	19.4	16.6	6	6	100
Utica.....	39	20.0	14.9	2	5	44
Washington, D. C.....	179	18.7	14.2	22	12	125
White.....	98			10		83
Colored.....	81	( <sup>5</sup> )		12		219
Waterbury.....	25			4	6	86
Wilmington, Del.....	56	23.9	14.5	4	4	94
Worcester.....	57	15.6	18.3	6	4	69
Yonkers.....	36	16.5	9.2	6	3	135
Youngstown.....	39	12.7	9.8	8	3	102

# PREVALENCE OF DISEASE

*No health department, State or local, can effectively prevent or control disease without knowledge of when, where, and under what conditions cases are occurring*

## UNITED STATES

### CURRENT WEEKLY STATE REPORTS

These reports are preliminary and the figures are subject to change when later returns are received by the State health officers

#### Reports for Week Ended March 27, 1926

ALABAMA		CALIFORNIA	
	Cases		Cases
Chicken pox.....	85	Cerebrospinal meningitis:	
Diphtheria.....	12	Fresno County.....	1
Influenza.....	1,169	Humboldt County.....	1
Lethargic encephalitis.....	1	Los Angeles.....	2
Malaria.....	10	Oakland.....	1
Measles.....	228	Chicken pox.....	375
Mumps.....	70	Diphtheria.....	132
Pellagra.....	4	Influenza.....	35
Pneumonia.....	195	Lethargic encephalitis—Los Angeles.....	2
Polomyelitis.....	1	Measles.....	180
Scarlet fever.....	7	Mumps.....	363
Smallpox.....	72	Polomyelitis—Los Angeles County.....	1
Tuberculosis.....	33	Rabies (human).....	1
Typhoid fever.....	3	Scarlet fever.....	147
Whooping cough.....	32	Smallpox.....	
		Los Angeles.....	46
		Los Angeles County.....	12
		Oakland.....	21
		Scatterling.....	47
		Trichinosis—Glendale.....	2
		Typhoid fever.....	7
		Whooping cough.....	52
ARIZONA		COLORADO	
Chicken pox.....	1	Chicken pox.....	53
Diphtheria.....	5	Diphtheria.....	24
Influenza.....	26	German measles.....	11
Measles.....	6	Influenza.....	1
Mumps.....	5	Jaundice (infectious).....	4
Pneumonia.....	2	Lethargic encephalitis.....	1
Scarlet fever.....	7	Measles.....	56
Trachoma.....	4	Mumps.....	8
Tuberculosis.....	32	Pneumonia.....	6
Whooping cough.....	2	Scarlet fever.....	39
		Smallpox.....	2
		Tuberculosis.....	22
		Typhoid fever.....	1
		Vincent's angina.....	1
		Whooping cough.....	81
ARKANSAS			
Chicken pox.....	27		
Diphtheria.....	4		
Influenza.....	533		
Malaria.....	23		
Measles.....	23		
Mumps.....	31		
Pellagra.....	3		
Scarlet fever.....	12		
Smallpox.....	14		
Tuberculosis.....	6		
Typhoid fever.....	1		
Whooping cough.....	22		

CONNECTICUT		GEORGIA—continued	
	Cases		Cases
Cerebrospinal meningitis.....	2	Scarlet fever.....	7
Chicken pox.....	54	Septic sore throat.....	12
Conjunctivitis (infectious).....	1	Smallpox.....	58
Diphtheria.....	23	Tuberculosis.....	23
German measles.....	7	Typhoid fever.....	2
Influenza.....	531	Whooping cough.....	60
Measles.....	811		
Mumps.....	18		
Paratyphoid fever.....	1		
Pneumonia (broncho).....	113		
Pneumonia (lobar).....	110		
Poliomyelitis.....	1		
Scarlet fever.....	95		
Septic sore throat.....	1		
Tuberculosis (all forms).....	29		
Typhoid fever.....	1		
Whooping cough.....	147		
DELAWARE		IDAHO	
Anthrax.....	1	Cerebrospinal meningitis—	
Chicken pox.....	5	Aberdeen.....	1
Diphtheria.....	3	American Falls.....	3
Influenza.....	12	Glenns Ferry.....	1
Measles.....	103	Idaho Falls.....	3
Pneumonia.....	4	Post Falls.....	2
Scarlet fever.....	8	Chicken pox.....	9
Tuberculosis.....	6	Diphtheria.....	7
Whooping cough.....	4	Influenza.....	4
		Measles.....	29
		Mumps.....	31
		Scarlet fever.....	20
		Smallpox.....	3
		Tuberculosis.....	1
		Typhoid fever.....	3
		Whooping cough.....	7
DISTRICT OF COLUMBIA		ILLINOIS	
Chicken pox.....	27	Cerebrospinal meningitis—Cook County....	1
Diphtheria.....	6	Diphtheria.....	72
Influenza.....	7	Influenza.....	479
Measles.....	389	Lethargic encephalitis—Tazewell County....	1
Pneumonia.....	51	Measles.....	1,048
Scarlet fever.....	21	Pneumonia.....	1,042
Smallpox.....	5	Scarlet fever.....	353
Tuberculosis.....	34	Smallpox.....	24
Typhoid fever.....	1	Tuberculosis.....	365
Whooping cough.....	35	Typhoid fever.....	9
		Whooping cough.....	108
FLORIDA		INDIANA	
Chicken pox.....	63	Chicken pox.....	67
Diphtheria.....	13	Diphtheria.....	16
Influenza.....	54	Influenza.....	324
Measles.....	69	Measles.....	1,828
Mumps.....	21	Mumps.....	5
Pneumonia.....	16	Pneumonia.....	35
Scarlet fever.....	17	Scarlet fever.....	222
Smallpox.....	155	Smallpox.....	91
Tuberculosis.....	11	Trachoma.....	8
Typhoid fever.....	5	Tuberculosis.....	34
Whooping cough.....	27	Typhoid fever.....	2
		Whooping cough.....	150
GEORGIA		IOWA	
Chicken pox.....	61	Chicken pox.....	15
Diphtheria.....	15	Diphtheria.....	9
Dysentery.....	4	Influenza.....	347
Hookworm disease.....	19	Measles.....	106
Influenza.....	1,111	Mumps.....	18
Malaria.....	8	Pneumonia.....	36
Measles.....	165	Scarlet fever.....	40
Mumps.....	38	Smallpox.....	24
Pellagra.....	9	Tuberculosis.....	10
Pneumonia.....	118	Whooping cough.....	7

KANSAS		MASSACHUSETTS	
	Cases		Cases
Cerebrospinal meningitis:		Anthrax.....	2
Republic.....	1	Cerebrospinal meningitis.....	8
Wichita.....	1	Chicken pox.....	153
Chicken pox.....	110	Conjunctivitis (suppurative).....	13
Diphtheria.....	22	Diphtheria.....	70
German measles.....	24	Dysentery.....	1
Influenza.....	56	German measles.....	261
Measles.....	586	Influenza.....	590
Mumps.....	40	Lethargic encephalitis.....	3
Pellagra.....	1	Measles.....	930
Pneumonia.....	81	Mumps.....	114
Scarlet fever.....	77	Ophthalmia neonatorum.....	16
Smallpox.....	5	Pneumonia (lobar).....	250
Tetanus.....	1	Poliomyelitis.....	1
Tuberculosis.....	72	Scarlet fever.....	260
Typhoid fever.....	1	Septic sore throat.....	2
Whooping cough.....	168	Trachoma.....	1
		Tuberculosis (pulmonary).....	123
		Tuberculosis (other forms).....	43
		Typhoid fever.....	6
		Whooping cough.....	419
		MICHIGAN	
		Diphtheria.....	72
		Measles.....	1,493
		Pneumonia.....	396
		Scarlet fever.....	409
		Smallpox.....	9
		Tuberculosis.....	35
		Typhoid fever.....	10
		Whooping cough.....	235
		MINNESOTA	
		Chicken pox.....	129
		Diphtheria.....	32
		Influenza.....	2
		Measles.....	381
		Pneumonia.....	3
		Scarlet fever.....	365
		Smallpox.....	21
		Trachoma.....	1
		Tuberculosis.....	61
		Typhoid fever.....	3
		Whooping cough.....	42
		MISSISSIPPI	
		Diphtheria.....	11
		Influenza.....	466
		Scarlet fever.....	3
		Smallpox.....	11
		Typhoid fever.....	2
		MISSOURI	
		Cerebrospinal meningitis.....	1
		Chicken pox.....	93
		Diphtheria.....	52
		Influenza.....	26
		Measles.....	782
		Mumps.....	45
		Pneumonia.....	17
		Rabies (in animals).....	5
		Scarlet fever.....	267
LOUISIANA			
Diphtheria.....	10		
Influenza.....	107		
Malaria.....	7		
Measles.....	19		
Pneumonia.....	48		
Scarlet fever.....	22		
Smallpox.....	34		
Tuberculosis.....	24		
Typhoid fever.....	7		
MAINE			
Chicken pox.....	25		
Diphtheria.....	3		
German measles.....	14		
Influenza.....	149		
Measles.....	228		
Mumps.....	80		
Pneumonia.....	25		
Scarlet fever.....	26		
Septic sore throat.....	4		
Tuberculosis.....	20		
Typhoid fever.....	4		
Vincent's angina.....	1		
Whooping cough.....	36		
MARYLAND <sup>1</sup>			
Cerebrospinal meningitis.....	1		
Chicken pox.....	79		
Diphtheria.....	15		
German measles.....	3		
Influenza.....	169		
Lethargic encephalitis.....	1		
Malaria.....	1		
Measles.....	675		
Mumps.....	178		
Pneumonia (broncho).....	100		
Pneumonia (lobar).....	85		
Scarlet fever.....	40		
Septic sore throat.....	1		
Tuberculosis.....	76		
Typhoid fever.....	5		
Vincent's angina.....	2		
Whooping cough.....	48		

<sup>1</sup> Week ended Friday.



## MISSOURI—continued

	Cases
Smallpox.....	9
Trachoma.....	25
Tuberculosis.....	25
Typhoid fever.....	1
Whooping cough.....	119

## MONTANA

Cerebrospinal meningitis.....	2
Chicken pox.....	25
Diphtheria.....	1
German measles.....	44
Influenza.....	20
Measles.....	18
Mumps.....	18
Polioomyelitis.....	1
Rocky Mountain spotted fever.....	2
Scarlet fever.....	90
Smallpox.....	15
Typhoid fever.....	3
Whooping cough.....	14

## NEBRASKA

Chicken pox.....	19
Diphtheria.....	4
Influenza.....	10
Measles.....	27
Mumps.....	17
Pneumonia.....	4
Polioomyelitis.....	1
Rabies.....	1
Scarlet fever.....	62
Smallpox.....	17
Tuberculosis.....	3
Whooping cough.....	30

## NEW JERSEY

Anthrax.....	1
Cerebrospinal meningitis.....	1
Chicken pox.....	156
Diphtheria.....	82
Influenza.....	177
Measles.....	1,900
Paratyphoid fever.....	1
Pneumonia.....	279
Polioomyelitis.....	1
Scarlet fever.....	184
Smallpox.....	3
Trachoma.....	1
Typhoid fever.....	4
Whooping cough.....	81

## NEW MEXICO

Chicken pox.....	18
Conjunctivitis.....	9
Diphtheria.....	6
Influenza.....	24
Measles.....	5
Mumps.....	18
Pneumonia.....	19
Polioomyelitis.....	1
Rabies (in animals).....	3
Scarlet fever.....	7
Septic sore throat.....	1
Tuberculosis.....	16
Whooping cough.....	46

## NEW YORK

(Exclusive of New York City)

	Cases
Chicken pox.....	245
Diphtheria.....	69
Dysentery.....	7
German measles.....	165
Influenza.....	3,665
Measles.....	1,268
Mumps.....	174
Ophthalmia neonatorum.....	1
Pneumonia.....	932
Scarlet fever.....	270
Septic sore throat.....	2
Smallpox.....	1
Tetanus.....	2
Trachoma.....	1
Typhoid fever.....	13
Vincent's angina.....	2
Whooping cough.....	393

## NORTH CAROLINA

Chicken pox.....	185
Diphtheria.....	21
German measles.....	299
Measles.....	302
Scarlet fever.....	22
Septic sore throat.....	2
Smallpox.....	40
Whooping cough.....	133

## OKLAHOMA

(Exclusive of Tulsa and Oklahoma City)

Cerebrospinal meningitis:	
Muskogee.....	1
Tillman County.....	1
Chicken pox.....	19
Diphtheria.....	17
Influenza.....	1,523
Malaria.....	18
Measles.....	30
Mumps.....	9
Pellagra.....	7
Pneumonia.....	185
Scarlet fever.....	53
Smallpox.....	17
Typhoid fever.....	4
Whooping cough.....	39

## OREGON

Cerebrospinal meningitis.....	4
Chicken pox.....	65
Diphtheria.....	14
Influenza.....	72
Measles.....	35
Mumps.....	47
Pneumonia.....	16
Rocky Mountain spotted fever.....	1
Scarlet fever.....	21
Septic sore throat.....	2
Smallpox.....	14
Tuberculosis.....	12
Typhoid fever.....	1
Whooping cough.....	26

¹ Deaths.

PENNSYLVANIA		TEXAS—continued	
	Cases		Cases
Actinomycosis—Philadelphia.....	1	Influenza.....	595
Anthrax.....	1	Measles.....	7
Chicken pox.....	434	Mumps.....	27
Diphtheria.....	144	Pellagra.....	5
German measles.....	61	Pneumonia.....	63
Impetigo contagiosa.....	7	Rabies (human).....	3
Lethargic encephalitis:		Scarlet fever.....	47
Eric.....	1	Smallpox.....	111
Mifflintown.....	1	Tuberculosis.....	24
Malaria.....	1	Typhoid fever.....	1
Measles.....	3,580	Whooping cough.....	71
Mumps.....	169		
Ophthalmia neonatorum—Philadelphia.....	1	UTAH	
Pneumonia.....	147	Chicken pox.....	27
Scabies.....	9	Diphtheria.....	8
Scarlet fever.....	572	Influenza.....	4
Smallpox.....	1	Measles.....	2
Trachoma—Philadelphia.....	1	Mumps.....	35
Tuberculosis.....	135	Pneumonia.....	2
Typhoid fever.....	36	Scarlet fever.....	4
Whooping cough.....	421	Whooping cough.....	107
RHODE ISLAND		VERMONT	
Chicken pox.....	1	Chicken pox.....	16
Diphtheria.....	8	Measles.....	28
German measles.....	16	Mumps.....	9
Influenza.....	58	Scarlet fever.....	21
Measles.....	184	Whooping cough.....	15
Mumps.....	3		
Pneumonia.....	6	WASHINGTON	
Scarlet fever.....	11	Cerebrospinal meningitis:	
Tuberculosis.....	11	Seattle.....	3
Whooping cough.....	3	Spokane.....	1
		Chicken pox.....	88
		Diphtheria.....	14
		German measles.....	53
		Influenza.....	1
		Measles.....	66
		Mumps.....	49
		Pneumonia.....	1
		Scarlet fever.....	74
		Septic sore throat.....	1
		Smallpox.....	112
		Tuberculosis.....	38
		Typhoid fever.....	6
		Whooping cough.....	40
SOUTH DAKOTA		WEST VIRGINIA	
Chicken pox.....	6	Diphtheria.....	5
Diphtheria.....	1	Influenza.....	136
Measles.....	19	Measles.....	288
Mumps.....	60	Scarlet fever.....	6
Pneumonia.....	3	Smallpox.....	1
Scarlet fever.....	77	Tuberculosis.....	5
Smallpox.....	5	Typhoid fever.....	9
Tuberculosis.....	1	Whooping cough.....	12
Typhoid fever.....	7		
Whooping cough.....	2		
TENNESSEE		WISCONSIN	
Cerebrospinal meningitis:		Milwaukee:	
Memphis.....	1	Chicken pox.....	121
Roane County.....	1	Diphtheria.....	19
Chicken pox.....	42	German measles.....	3
Diphtheria.....	14	Influenza.....	6
Influenza.....	487	Lethargic encephalitis.....	1
Malaria.....	3	Measles.....	118
Measles.....	296	Mumps.....	36
Pellagra.....	7	Pneumonia.....	42
Pneumonia.....	94	Scarlet fever.....	22
Scarlet fever.....	32	Tuberculosis.....	20
Smallpox.....	13	Whooping cough.....	54
Trachoma.....	2		
Tuberculosis.....	56		
Typhoid fever.....	5		
Whooping cough.....	25		
TEXAS			
Chicken pox.....	105		
Diphtheria.....	48		
Dysentery.....	1		

## WISCONSIN—continued

Scattering:	Cases
Cerebrospinal meningitis.....	2
Chicken pox.....	130
Diphtheria.....	32
German measles.....	58
Influenza.....	298
Lethargic encephalitis.....	4
Measles.....	670
Mumps.....	125
Pneumonia.....	20
Poliomyelitis.....	1
Scarlet fever.....	194
Smallpox.....	8
Tuberculosis.....	29

## WISCONSIN—continued

Scattering—continued	Cases
Typhoid fever.....	1
Whooping cough.....	127
WYOMING	
Chicken pox.....	8
Diphtheria.....	1
German measles.....	4
Influenza.....	8
Measles.....	2
Mumps.....	7
Rocky Mountain spotted fever.....	1
Scarlet fever.....	17
Septic sore throat.....	3
Whooping cough.....	9

## Report for Week Ended March 20, 1926

## NORTH DAKOTA

	Cases
Cerebrospinal meningitis.....	2
Chicken pox.....	21
Diphtheria.....	12
German measles.....	87
Influenza.....	88
Lethargic encephalitis.....	2
Measles.....	18

## NORTH DAKOTA—continued

	Cases
Mumps.....	20
Pneumonia.....	39
Poliomyelitis.....	2
Scarlet fever.....	100
Smallpox.....	1
Tuberculosis.....	6
Whooping cough.....	7

## SUMMARY OF MONTHLY REPORTS FROM STATES

The following summary of monthly State reports is published weekly and covers only those States from which reports are received during the current week.

State	Cerebrospinal meningitis	Diphtheria	Influenza	Malaria	Measles	Pellagra	Poliomyelitis	Scarlet fever	Smallpox	Typhoid fever
<i>February, 1926</i>										
Delaware.....		11	26	1	682		0	9	1	2
Georgia.....	1	53	4,305	41	393	8	2	27	70	12
Illinois.....	8	392	243	5	3,337		7	2,129	163	49
Kansas.....	7	72	334	0	691	1	1	336	55	4
Louisiana.....	5	67	2,276	8	5	6	0	64	250	50
Maryland.....	4	105	2,799	1	5,951	0	0	212	4	11
Minnesota.....	2	219	9		511		1	1,733	54	26
Missouri.....	6	357	179		947		2	1,052	34	13
New York.....	18	840	1,020	1	14,226		12	1,769	3	80
North Carolina.....	1	114			859		4	149	115	9
Ohio.....	3	389	40	1	15,060		5	1,639	308	42
Oklahoma <sup>1</sup> .....	2	60	3,891	42	53	17	5	161	80	16
West Virginia.....	3	74	286		983	0	0	152	25	47
Wyoming.....	0	2	14		18		0	67	1	1

<sup>1</sup> Exclusive of Tulsa and Oklahoma City.

## PNEUMONIA (ALL FORMS) AND INFLUENZA

Deaths reported in large cities of the United States during two-week periods ended  
March 21, 1925, and March 20, 1926

## PNEUMONIA (ALL FORMS)

	Week ended—					Week ended—			
	Mar. 14, 1925	Mar. 13, 1926	Mar. 21, 1925	Mar. 20, 1926		Mar. 14, 1925	Mar. 13, 1926	Mar. 21, 1925	Mar. 20, 1926
Atlanta.....	12	11	15	13	Nashville.....	5	13	3	13
Baltimore.....	39	43	67	55	New Bedford.....	7	7	—	—
Birmingham.....	11	14	17	12	New Haven.....	2	10	5	15
Boston.....	27	47	25	76	New Orleans.....	10	8	10	15
Bridgeport.....	5	3	3	6	New York.....	207	500	237	608
Buffalo.....	16	25	21	34	Newark.....	17	39	19	38
Cambridge, Mass.....	1	1	3	12	Norfolk.....	6	13	5	17
Camden.....	3	19	6	15	Oakland.....	5	6	8	7
Canton.....	—	2	4	4	Oklahoma City.....	10	6	2	5
Chicago.....	132	193	108	252	Omaha.....	10	13	15	11
Cincinnati.....	13	13	21	15	Philadelphia.....	78	238	51	194
Cleveland.....	45	39	29	53	Pittsburgh.....	84	40	79	35
Columbus.....	10	8	15	8	Portland, Oreg.....	10	4	10	10
Dallas.....	9	7	3	7	Providence.....	14	8	13	12
Denver.....	14	22	11	12	Reading.....	—	11	—	17
Detroit.....	50	103	57	117	Richmond.....	3	7	5	6
Duluth.....	5	3	5	1	Rochester.....	5	32	6	38
Elizabeth.....	3	8	6	8	St. Paul.....	11	7	10	8
El Paso.....	7	5	3	—	Salt Lake City.....	4	5	—	—
Erie.....	5	2	3	—	San Antonio.....	5	12	—	11
Fall River.....	4	1	8	3	San Diego.....	2	2	4	3
Flint.....	—	9	6	14	San Francisco.....	7	7	8	4
Fort Worth.....	2	9	—	5	Schenectady.....	4	2	2	4
Grand Rapids.....	2	2	3	8	Somerville.....	6	6	8	5
Hartford.....	13	5	6	6	Springfield, Mass.....	3	4	3	6
Houston.....	3	15	8	14	Syracuse.....	8	13	7	21
Indianapolis.....	28	23	30	29	Tacoma.....	—	3	1	—
Kansas City, Mo.....	27	23	28	18	Toledo.....	15	7	2	7
Los Angeles.....	30	13	22	22	Trenton.....	5	8	2	11
Louisville.....	23	17	21	36	Washington.....	16	31	18	23
Lowell.....	11	—	10	9	Waterbury.....	6	5	4	7
Lynn.....	5	3	5	3	Wilmington, Del.....	5	13	4	16
Memphis.....	14	19	5	9	Worcester.....	13	7	10	12
Minneapolis.....	17	9	14	17	Youngstown.....	5	2	7	7

## INFLUENZA

Atlanta.....	2	2	2	4	Nashville.....	5	2	5	12
Baltimore.....	2	11	10	4	New Bedford.....	—	—	—	—
Birmingham.....	7	22	6	17	New Haven.....	—	—	2	1
Boston.....	7	1	1	6	New Orleans.....	14	1	7	12
Bridgeport.....	1	4	—	4	New York.....	25	85	20	87
Buffalo.....	1	2	2	5	Newark.....	—	—	1	2
Cambridge, Mass.....	—	—	—	3	Norfolk.....	—	—	—	—
Camden.....	—	6	—	2	Oakland.....	1	2	—	—
Canton.....	—	—	—	3	Oklahoma City.....	2	1	2	2
Chicago.....	17	12	30	49	Omaha.....	10	70	12	61
Cincinnati.....	3	4	5	7	Philadelphia.....	10	1	13	9
Cleveland.....	3	3	3	14	Pittsburgh.....	5	1	13	9
Columbus.....	14	3	13	1	Portland, Oreg.....	—	—	—	—
Dallas.....	3	8	1	11	Providence.....	1	4	1	4
Denver.....	1	15	5	3	Reading.....	—	—	—	—
Detroit.....	1	20	6	18	Richmond.....	1	7	—	2
Duluth.....	—	—	—	—	Rochester.....	—	26	2	16
Elizabeth.....	—	—	—	—	St. Paul.....	—	1	—	3
El Paso.....	4	3	5	4	Salt Lake City.....	3	—	—	—
Erie.....	2	1	2	—	San Antonio.....	—	7	1	4
Fall River.....	3	—	3	1	San Diego.....	1	1	1	—
Flint.....	—	—	1	—	San Francisco.....	3	3	—	1
Fort Worth.....	—	7	—	5	Schenectady.....	—	—	1	2
Grand Rapids.....	2	—	1	—	Somerville.....	1	—	—	—
Hartford.....	1	—	1	1	Springfield, Mass.....	1	1	2	2
Houston.....	2	3	4	3	Syracuse.....	2	5	2	5
Indianapolis.....	2	1	3	2	Tacoma.....	—	—	—	—
Kansas City, Mo.....	12	8	14	8	Toledo.....	—	1	3	5
Los Angeles.....	1	1	3	4	Trenton.....	4	0	—	4
Louisville.....	—	2	2	5	Washington.....	2	1	6	—
Lowell.....	—	—	—	—	Waterbury.....	—	—	—	1
Lynn.....	—	—	—	—	Wilmington, Del.....	—	5	—	—
Memphis.....	1	8	3	6	Worcester.....	—	—	—	—
Minneapolis.....	1	2	2	3	Youngstown.....	—	—	—	—

### RECIPROCAL NOTIFICATIONS

*Notifications regarding communicable diseases sent during the month of February, 1926, to other State health departments by departments of health of certain States*

Referred by—	Diphtheria	Scarlet fever	Small-pox	Tuberculosis	Typhoid fever
Connecticut.....	1				
Illinois.....		1	4	7	1
Minnesota.....		1		26	2
New York.....		1	1		
New Mexico.....				1	

### PLAGUE-ERADICATIVE MEASURES IN LOS ANGELES, CALIF.

The following items were taken from the reports of plague-eradication measures from Los Angeles, Calif.

Week ended Mar. 13, 1926:

Number of rats trapped.....	2, 562
Number of rats found to be plague infected.....	0
Number of squirrels examined.....	907
Number of squirrels found to be plague infected.....	0
Number of mice trapped.....	2, 306
Number of mice found to be plague infected.....	0

Date of discovery of last plague-infected rodent, Nov. 6, 1925.

Date of last human case, Jan. 15, 1925.

### GENERAL CURRENT SUMMARY AND WEEKLY REPORTS FROM CITIES

*Diphtheria.*—For the week ended March 13, 1926, 37 States reported 1,094 cases of diphtheria. For the week ended March 14, 1925, the same States reported 1,505 cases of this disease. One hundred and one cities, situated in all parts of the country and having an aggregate population of more than 30,300,000, reported 665 cases of diphtheria for the week ended March 13, 1926. Last year for the corresponding week they reported 928 cases. The estimated expectancy for these cities was 987 cases. The estimated expectancy is based on the experience of the last nine years, excluding epidemics.

*Measles.*—Thirty-four States reported 16,631 cases of measles for the week ended March 13, 1926, and 4,060 cases of this disease for the week ended March 14, 1925. One hundred and one cities reported 9,859 cases of measles for the week this year, and 2,478 cases last year.

*Poliomyelitis.*—The health officers of 37 States reported 16 cases of poliomyelitis for the week ended March 13, 1926. The same States reported 15 cases for the week ended March 14, 1925.

*Scarlet fever.*—Scarlet fever was reported for the week as follows: Thirty-seven States—this year, 3,949 cases; last year, 4,451 cases; 101 cities—this year, 1,767 cases; last year, 2,372 cases; estimated expectancy, 1,236 cases.

*Smallpox.*—For the week ended March 13, 1926, 37 States reported 880 cases of smallpox. Last year for the corresponding week they reported 896 cases. One hundred and one cities reported smallpox for the week as follows: 1926, 233 cases; 1925, 340 cases; estimated expectancy, 143 cases. Thirteen deaths from smallpox were reported by these cities for the week this year—at Los Angeles, Calif.

*Typhoid fever.*—One hundred and thirty-four cases of typhoid fever were reported for the week ended March 13, 1926, by 36 States. For the corresponding week of 1925, the same States reported 219 cases of this disease. One hundred and one cities reported 47 cases of typhoid fever for the week this year and 53 cases for the corresponding week last year. The estimated expectancy for these cities was 35 cases.

*Influenza and pneumonia.*—Deaths from influenza and pneumonia were reported for the week by 95 cities, with a population of more than 29,700,000, as follows: 1926, 2,262 deaths; 1925, 1,382.

*City reports for week ended March 13, 1926*

The "estimated expectancy" given for diphtheria, poliomyelitis, scarlet fever, smallpox, and typhoid fever is the result of an attempt to ascertain from previous occurrence how many cases of the disease under consideration may be expected to occur during a certain week in the absence of epidemics. It is based on reports to the Public Health Service during the past nine years. It is in most instances the median number of cases reported in the corresponding week of the preceding years. When the reports include several epidemics or when for other reasons the median is unsatisfactory, the epidemic periods are excluded and the estimated expectancy is the mean number of cases reported for the week during nonepidemic years.

If reports have not been received for the full nine years, data are used for as many years as possible, but no year earlier than 1917 is included. In obtaining the estimated expectancy, the figures are smoothed when necessary to avoid abrupt deviations from the usual trend. For some of the diseases given in the table the available data were not sufficient to make it practicable to compute the estimated expectancy.

Division, State, and city	Population July 1, 1926, estimated	Chicken pox, cases reported	Diphtheria		Influenza		Measles, cases reported	Mumps, cases reported	Pneumonia, deaths reported
			Cases, estimated expectancy	Cases reported	Cases reported	Deaths reported			
NEW ENGLAND									
Maine:									
Portland.....	75,333	4	1	0	2	0	26	5	3
New Hampshire:									
Concord.....	22,545	0	0	0	0	0	2	0	2
Manchester.....	83,067	0	3	0	0	1	17	0	1
Vermont:									
Barre.....	10,008	0	0	0	0	0	0	0	0
Burlington.....	24,039	0	0	0	0	0	0	0	0
Massachusetts:									
Boston.....	779,820	67	60	14	12	1	157	55	47
Fall River.....	128,993	3	4	1	0	0	12	1	1
Springfield.....	142,085	19	4	0	2	1	211	0	4
Worcester.....	190,757	4	4	5	1	0	20	1	7
Rhode Island:									
Pawtucket.....	68,760	0	1	0	0	0	39	0	2
Providence.....	267,918	3	10	4	39	4	214	1	8
Connecticut:									
Bridgeport.....	(1)	0	8	5	11	4	5	0	3
Hartford.....	160,197	5	8	4	0	0	48	0	5
New Haven.....	178,927	12	3	0	5	0	49	0	10

1 No estimate made.

## City reports for week ended March 13, 1926—Continued

Division, State, and city	Population July 1, 1925, estimated	Chicken pox, cases re-ported	Diphtheria		Influenza		Meas-les, cases re-ported	Mumps, cases re-ported	Pneu-monia, deaths re-ported
			Cases, esti-mated expec-tancy	Cases re-ported	Cases re-ported	Deaths re-ported			
MIDDLE ATLANTIC									
New York:	—								
Buffalo.....	538,016	28	14	12	21	2	11	2	25
New York.....	5,873,356	178	227	109	833	85	2,220	53	500
Rochester.....	316,786	3	8	9	104	26	80	2	32
Syracuse.....	182,003	16	5	6	138	5	112	27	13
New Jersey:									
Camden.....	128,642	12	5	5	6	6	13	0	19
Newark.....	452,513	55	17	6	30	0	485	4	39
Trenton.....	132,020	10	4	2	38	6	6	0	8
Pennsylvania:									
Philadelphia.....	1,979,364	102	83	66	14	79	457	19	238
Pittsburgh.....	631,563	41	21	11	-----	1	49	1	40
Reading.....	112,707	7	3	0	-----	-----	9	7	11
EAST NORTH CENTRAL									
Ohio:									
Cincinnati.....	409,333	8	10	5	0	4	10	6	13
Cleveland.....	936,485	37	27	30	9	2	556	2	39
Columbus.....	279,836	20	4	3	0	3	458	0	8
Toledo.....	287,380	46	5	3	0	1	59	1	7
Indiana:									
Fort Wayne.....	97,846	10	3	1	0	0	7	0	0
Indianapolis.....	358,819	41	8	1	0	1	1,005	2	23
South Bend.....	80,091	4	1	3	0	0	0	0	9
Terre Haute.....	71,071	0	1	1	0	0	5	0	7
Illinois:									
Chicago.....	2,995,239	127	102	51	301	12	112	24	193
Peoria.....	81,564	7	1	0	0	2	0	29	3
Springfield.....	63,923	20	0	0	4	3	11	5	1
Michigan:									
Detroit.....	1,245,824	38	54	43	50	20	827	13	103
Flint.....	130,316	5	5	4	4	0	11	4	9
Grand Rapids.....	153,698	9	3	1	0	0	22	0	2
Wisconsin:									
Kenosha.....	50,891	14	2	0	0	0	0	0	1
Madison.....	46,385	-----	0	-----	-----	-----	-----	-----	-----
Milwaukee.....	509,192	117	15	10	1	1	87	57	14
Racine.....	67,707	11	1	3	0	0	0	20	0
Superior.....	39,671	0	0	0	0	0	0	0	0
WEST NORTH CENTRAL									
Minnesota:									
Duluth.....	110,502	7	1	0	0	0	0	0	3
Minneapolis.....	425,435	97	16	15	0	2	182	3	9
St. Paul.....	246,001	36	15	12	0	1	18	5	7
Iowa:									
Davenport.....	(1)	2	1	0	0	-----	0	0	-----
Sioux City.....	(1)	5	1	0	0	-----	1	0	-----
Waterloo.....	36,771	8	0	1	0	-----	9	0	-----
Missouri:									
Kansas City.....	367,481	38	7	8	12	8	317	4	23
St. Joseph.....	78,342	1	1	1	0	0	1	0	5
St. Louis.....	821,543	48	41	66	3	3	121	11	-----
North Dakota:									
Fargo.....	26,403	2	1	1	0	1	0	15	2
Grand Forks.....	14,811	2	0	0	0	-----	17	0	-----
South Dakota:									
Aberdeen.....	15,036	4	0	0	0	-----	15	72	-----
Sioux Falls.....	30,127	19	1	1	0	0	15	0	-----
Nebraska:									
Lincoln.....	60,941	8	2	0	0	1	0	1	0
Omaha.....	211,768	6	4	1	0	0	31	0	13
Kansas:									
Topeka.....	55,411	22	1	2	0	2	10	2	3
Wichita.....	88,367	6	2	0	0	0	105	0	5

¹No estimate made.

## City reports for week ended March 13, 1926—Continued

Division, State, and city	Population July 1, 1925, estimated	Chicken pox, cases reported	Diphtheria		Influenza		Measles, cases reported	Mumps, cases reported	Pneumonia, deaths reported
			Cases, estimated expectancy	Cases reported	Cases reported	Deaths reported			
SOUTH ATLANTIC									
Delaware:									
Wilmington.....	122, 049	4	2	7	0	5	72	0	13
Maryland:									
Baltimore.....	796, 296	83	26	12	60	11	625	164	43
Cumberland.....	33, 741	0	1	2	0	0	11	0	3
Frederick.....	12, 035	0	0	0	1	0	14	0	0
District of Columbia:									
Washington.....	497, 906	22	12	14	1	1	212	0	31
Virginia:									
Lynchburg.....	30, 395	15	0	1	0	0	23	0	2
Norfolk.....	(1)	14	1	0	0	0	3	0	13
Richmond.....	186, 403	6	2	2	0	7	3	10	7
Roanoke.....	58, 208	3	0	1	0	0	107	0	8
West Virginia:									
Charleston.....	49, 019	21	0	0	5	0	5	0	4
Huntington.....	63, 485	0	0	2	0	0	5	0	0
Wheeling.....	56, 208	18	1	1	0	0	65	0	2
North Carolina:									
Raleigh.....	30, 371	0	0	0	0	1	0	0	0
Wilmington.....	37, 061	11	1	0	0	2	0	1	1
Winston-Salem.....	69, 031	7	0	2	0	6	56	3	4
South Carolina:									
Charleston.....	73, 125	1	1	2	8	3	0	0	9
Columbia.....	41, 225	2	1	0	0	0	0	1	0
Greenville.....	27, 311	3	0	0	0	0	0	2	0
Georgia:									
Atlanta.....	(1)	6	2	1	69	2	7	2	11
Brunswick.....	16, 809	3	0	0	0	0	0	0	0
Savannah.....	93, 134	4	1	0	16	1	3	1	5
Florida:									
St. Petersburg.....	26, 847		0			0			2
Tampa.....	94, 743	6	2	1	1	2	1	2	4
EAST SOUTH CENTRAL									
Kentucky:									
Covington.....	58, 309		1			0			4
Louisville.....	305, 935	8	6	0	33	2	134	0	17
Tennessee:									
Memphis.....	174, 533	26	5	5	0	8	29	13	19
Nashville.....	136, 220	0	2	0	0	2	85	2	18
Alabama:									
Birmingham.....	205, 670	21	2	0	114	22	24	7	14
Mobile.....	65, 955	5	0	0	0	4	0	0	2
Montgomery.....	46, 481	13	1	0	10	0	0	19	6
1No. estimate made.									
WEST SOUTH CENTRAL									
Arkansas:									
Fort Smith.....	31, 643	5	1	0	0		0	0	
Little Rock.....	74, 216	0	0	0	2	2	3	0	2
Louisiana:									
New Orleans.....	414, 493	5	11	8	25	1	2	0	8
Shreveport.....	57, 857	12	1	0	0	0	1	9	4
Oklahoma:									
Oklahoma City.....	(1)	1	2	0	123	1	0	0	6
Tulsa.....	124, 478	2	1	1	0		0	0	
Texas:									
Dallas.....	194, 450	19	5	4	15	8	1	0	7
Galveston.....	48, 375	0	0	0	0	1	1	0	6
Houston.....	164, 954	1	2	11	0	3	0	0	15
San Antonio.....	198, 069	1	2	1	1	7	1	0	12
MOUNTAIN									
Montana:									
Billings.....	17, 971	0	0	0	0	0	0	1	1
Great Falls.....	29, 883	20	1	0	0	0	1	14	0
Helena.....	12, 037	0	0	0	0	0	0	0	1
Missoula.....	12, 668	0	1	0	91	1	17	0	2
Idaho:									
Boise.....	23, 042	0	0	0	0	0	0	0	0

1No estimate made.



## City reports for week ended March 13, 1926—Continued

Division, State, and city	Population July 1, 1925, estimated	Chicken pox, cases reported	Diphtheria		Influenza		Measles, cases reported	Mumps, cases reported	Pneumonia, deaths reported
			Cases, estimated expectancy	Cases reported	Cases reported	Deaths reported			
MOUNTAIN—continued									
Colorado:									
Denver.....	280,911	29	8	11	-----	15	18	1	22
Pueblo.....	43,787	7	2	1	0	0	1	0	2
New Mexico:									
Albuquerque.....	21,000	1	1	5	0	0	1	1	3
Arizona:									
Phoenix.....	38,669	2	1	0	0	1	2	0	1
Utah:									
Salt Lake City.....	130,948	30	2	0	0	0	0	25	5
Nevada:									
Reno.....	12,665	0	0	0	0	0	0	0	0
PACIFIC									
Washington:									
Seattle.....	(1)	40	5	3	0	-----	15	62	-----
Spokane.....	108,897	9	3	2	0	-----	0	0	-----
Tacoma.....	104,455	1	1	4	0	0	4	1	3
Oregon:									
Portland.....	282,383	18	5	16	7	1	6	10	4
California:									
Los Angeles.....	(1)	98	35	33	20	1	11	15	13
Sacramento.....	72,260	7	1	2	0	2	1	7	3
San Francisco.....	557,530	51	22	11	5	3	90	38	7

Division, State, and city	Scarlet fever		Smallpox			Tuber- culosis, deaths re- ported	Typhoid fever			Whoop- ing cough, cases re- ported	Deaths, all causes
	Cases, esti- mated expect- ancy	Cases re- ported	Cases, esti- mated expect- ancy	Cases re- ported	Deaths re- ported		Cases, esti- mated expect- ancy	Cases re- ported	Deaths re- ported		
NEW ENGLAND											
Maine:											
Portland.....	2	5	0	0	0	0	0	0	0	6	15
New Hampshire:											
Concord.....	0	3	0	0	0	0	0	0	0	0	9
Manchester.....	2	7	0	0	0	0	1	0	0	0	19
Vermont:											
Barre.....	1	0	0	0	0	1	0	0	0	0	2
Burlington.....	1	8	1	0	0	1	0	0	0	0	11
Massachusetts:											
Boston.....	59	82	0	0	0	17	2	2	0	199	272
Fall River.....	3	2	0	0	0	2	0	0	0	1	27
Springfield.....	7	3	0	0	0	2	0	0	0	34	45
Worcester.....	9	7	0	0	0	1	0	0	0	18	57
Rhode Island:											
Pawtucket.....	1	1	0	0	0	0	0	0	0	8	-----
Providence.....	9	6	0	0	0	7	0	0	0	12	87
Connecticut:											
Bridgeport.....	9	15	0	0	0	1	0	0	0	14	44
Hartford.....	7	3	0	0	0	2	0	0	0	7	60
New Haven.....	6	14	0	0	0	0	0	0	0	20	59
MIDDLE ATLANTIC											
New York:											
Buffalo.....	20	9	0	0	0	12	1	1	0	24	168
New York.....	270	170	0	0	0	139	7	7	2	93	2,183
Rochester.....	18	20	0	0	0	7	0	0	0	15	154
Syracuse.....	16	3	0	0	0	2	1	1	0	87	89
New Jersey:											
Camden.....	3	6	0	0	0	0	0	1	0	4	57
Newark.....	25	25	0	0	0	11	1	0	0	31	152
Trenton.....	5	6	0	0	0	4	0	4	0	0	49
Pennsylvania:											
Philadelphia.....	74	81	0	0	0	53	3	1	0	47	936
Pittsburgh.....	24	51	0	0	0	10	0	0	0	42	208
Reading.....	3	14	0	0	0	3	0	0	0	7	55

<sup>1</sup> No estimate made.<sup>2</sup> Pulmonary tuberculosis only.

## City reports for week ended March 13, 1926—Continued

Division, State, and city	Scarlet fever		Smallpox			Tuber- culosis, deaths reported	Typhoid fever			Whoop- ing cough, cases re- ported	Deaths, all causes
	Cases, esti- mated expect- ancy	Cases re- ported	Cases, esti- mated expect- ancy	Cases re- ported	Deaths reported		Cases esti- mated expect- ancy	Cases re- ported	Deaths re- ported		
EAST NORTH CENTRAL											
Ohio:											
Cincinnati.....	13	25	2	2	0	12	0	0	0	20	120
Cleveland.....	33	89	2	0	0	21	1	1	1	118	225
Columbus.....	9	21	1	3	0	2	0	0	0	2	65
Toledo.....	20	12	4	0	0	3	1	0	0	18	76
Indiana:											
Fort Wayne.....	4	18	1	0	0	0	0	0	0	3	24
Indianapolis.....	9	13	6	19	0	5	0	1	0	51	120
South Bend.....	4	1	2	4	0	0	0	0	0	4	24
Terre Haute.....	3	4	1	0	0	2	0	0	0	1	27
Illinois:											
Chicago.....	125	186	3	0	0	62	3	2	0	53	944
Peoria.....	4	4	1	1	0	0	0	0	0	10	14
Springfield.....	1	0	0	0	0	3	0	0	0	26	26
Michigan:											
Detroit.....	94	117	2	0	0	22	1	1	0	58	454
Flint.....	6	14	1	0	0	0	0	0	0	16	38
Grand Rapids.....	9	22	1	0	0	0	0	0	0	44	43
Wisconsin:											
Kenosha.....	3	3	1	0	0	0	1	0	0	2	5
Madison.....	3		0				0				
Milwaukee.....	31	22	5	0	0	5	1	1	1	44	102
Racine.....	4	2	1	0	0	0	0	0	0	22	11
Superior.....	2	6	5	0	0	0	0	0	0	0	4
WEST NORTH CENTRAL											
Minnesota:											
Duluth.....	5	15	1	0	0	0	0	0	0	12	17
Minneapolis.....	39	91	11	0	0	2	1	0	0	4	113
St. Paul.....	29	70	7	0	0	5	0	0	0	19	57
Iowa:											
Davenport.....	2	2	2	0			0	0		0	
Sioux City.....	2	3	1	4			0	0		0	
Waterloo.....	3	1	1	4			0	0		2	
Missouri:											
Kansas City.....	12	31	2	0	0	8	0	1	0	55	117
St. Joseph.....	2	3	0	0	0	0	0	1	0	0	31
St. Louis.....	31	197	5	6	0	6	1	0	0	26	267
North Dakota:											
Fargo.....	2	9	0	0	0	0	0	0	0	3	14
Grand Forks.....	0	0	0	0			0	0		2	
South Dakota:											
Aberdeen.....	4	6	0	0			0	0		2	
Sioux Falls.....	3	3	0	1	0	0	0	0	0	0	7
Nebraska:											
Lincoln.....	3	1	0	0	0	0	0	0	0	26	9
Omaha.....	5	22	6	14	0	3	0	0	0	1	61
Kansas:											
Topeka.....	2	4	0	5	0	0	0	0	0	1	27
Wichita.....	2	2	2	0	0	0	0	0	0	8	22
SOUTH ATLANTIC											
Delaware:											
Wilmington.....	2	5	0	0	0	0	0	0	0	3	56
Maryland:											
Baltimore.....	39	32	1	0	0	14	2	1	0	38	256
Cumberland.....	0	0	0	0	0	1	0	0	0	5	15
Frederick.....	1	0	0	0	0	0	0	0	0	2	2
District of Col.:											
Washington.....	27	17	1	1	0	10	1	1	0	22	179
Virginia:											
Lynchburg.....	0	1	0	0	0	0	0	0	0	6	9
Norfolk.....	2	12	0	0	0	2	0	0	0	4	
Richmond.....	3	7	0	0	0	3	0	0	0	1	71
Roanoke.....	1	0	1	2	0	3	0	0	0	2	22
West Virginia:											
Charleston.....	0	1	0	0	0	1	0	1	0	13	19
Huntington.....	1	2	0	0	0	2	0	0	0	0	17
Wheeling.....	1	1	0	0	0	0	0	1	0	1	20
North Carolina:											
Raleigh.....	0	0	1	0	0	1	0	0	0	0	17
Wilmington.....	0	0	1	0	0	0	0	0	0	2	16
Winston-Salem.....	1	1	4	4	0	1	0	0	0	4	26

## City reports for week ended March 13, 1926—Continued

Division, State, and city	Scarlet fever		Smallpox			Tuber- cul- osis, deaths re- ported	Typhoid fever			Whoop- ing cough, cases re- ported	Deaths, all causes
	Cases, esti- mated expect- ancy	Cases re- ported	Cases, esti- mated expect- ancy	Cases re- ported	Deaths re- ported		Cases, esti- mated expect- ancy	Cases re- ported	Deaths re- ported		
SOUTH ATLANTIC— continued											
South Carolina:											
Charleston.....	0	0	0	0	0	3	0	0	0	0	30
Columbia.....	1	0	0	2	0	0	0	0	0	0	-----
Greenville.....	0	0	1	1	0	0	0	0	0	2	17
Georgia:											
Atlanta.....	4	2	3	1	0	5	0	0	0	1	69
Brunswick.....	0	0	1	0	0	0	0	0	0	0	10
Savannah.....	1	0	0	0	0	2	0	0	0	0	33
Florida:											
St. Petersburg..	1	-----	0	-----	0	1	0	-----	0	-----	26
Tampa.....	0	1	1	15	0	9	2	0	0	1	44
EAST SOUTH CENTRAL											
Kentucky:											
Covington.....	2	-----	0	-----	0	5	0	-----	0	-----	34
Louisville.....	5	7	0	0	0	8	0	0	1	3	104
Tennessee:											
Memphis.....	3	9	2	6	0	4	0	1	0	1	74
Nashville.....	3	1	2	0	0	3	0	0	0	1	68
Alabama:											
Birmingham....	2	9	8	7	0	8	1	0	0	0	108
Mobile.....	0	0	2	0	0	3	0	0	0	0	25
Montgomery....	0	1	0	0	0	0	0	0	0	0	22
WEST SOUTH CENTRAL											
Arkansas:											
Fort Smith.....	0	0	1	0	-----	-----	0	0	-----	0	-----
Little Rock....	1	4	0	0	0	2	0	0	0	0	-----
Louisiana:											
New Orleans....	5	10	3	5	0	21	2	1	1	6	170
Shreveport....	0	1	2	0	0	4	0	0	0	9	32
Oklahoma:											
Oklahoma City..	3	2	5	1	0	1	0	0	0	1	33
Tulsa.....	1	1	3	0	-----	-----	0	0	-----	2	-----
Texas:											
Dallas.....	2	10	5	6	0	2	0	0	0	9	57
Galveston.....	0	0	1	8	0	1	1	0	0	0	21
Houston.....	1	0	1	14	0	4	0	0	0	0	53
San Antonio....	1	1	0	0	0	12	1	0	0	0	65
MOUNTAIN											
Montana:											
Billings.....	1	0	0	0	0	0	0	0	0	0	7
Great Falls....	2	1	2	0	0	0	0	0	0	7	5
Helena.....	0	0	0	0	0	0	0	0	0	0	4
Missoula.....	1	2	0	0	0	0	0	0	0	1	7
Idaho:											
Boise.....	0	0	1	2	0	0	0	0	0	2	-----
Colorado:											
Denver.....	13	18	2	0	0	11	0	15	1	78	109
Pueblo.....	1	3	1	0	0	2	0	0	0	2	9
New Mexico:											
Albuquerque....	1	2	0	0	0	7	0	0	0	1	24
Arizona:											
Phoenix.....	0	1	0	0	0	5	0	0	0	0	20
Utah:											
Salt Lake City..	4	0	2	0	0	4	0	1	0	0	25
Nevada:											
Reno.....	0	0	1	0	0	0	0	0	0	0	3
PACIFIC											
Washington:											
Seattle.....	10	32	3	5	-----	-----	0	0	-----	7	-----
Spokane.....	4	16	6	0	0	0	0	0	0	1	-----
Tacoma.....	2	2	2	23	0	0	1	0	0	15	26
Oregon:											
Portland.....	6	10	13	3	0	4	1	0	0	3	61
California:											
Los Angeles....	20	26	4	57	13	20	2	0	0	1	250
Sacramento....	2	5	1	6	0	4	0	0	0	0	26
San Francisco..	15	12	7	6	0	12	6	0	1	9	162

## City reports for week ended March 13, 1926—Continued

Division, State, and city	Cerebrospinal meningitis		Lethargic encephalitis		Tellagra		Poliomyelitis (infantile paralysis)		
	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases, estimated expectancy	Cases	Deaths
NEW ENGLAND									
Massachusetts:									
Boston.....	0	0	1	2	0	0	0	0	0
MIDDLE ATLANTIC									
New York:									
New York.....	3	1	4	4	0	0	1	4	1
New Jersey:									
Newark.....	2	0	0	0	0	0	0	0	0
Pennsylvania:									
Philadelphia.....	0	0	1	0	0	0	0	0	0
EAST NORTH CENTRAL									
Illinois:									
Chicago.....	1	0	1	1	0	0	1	0	0
Michigan:									
Detroit.....	1	0	2	1	0	0	0	2	1
Grand Rapids.....	2	1	0	0	0	0	0	0	0
Wisconsin:									
Milwaukee.....	1	1	0	0	0	0	0	0	0
Superior.....	0	0	0	1	0	0	0	0	0
WEST NORTH CENTRAL									
Minnesota:									
St. Paul.....	1	0	0	0	0	0	0	0	0
Missouri:									
St. Louis.....	0	0	0	0	0	0	0	1	0
Kansas:									
Wichita.....	0	1	0	0	0	0	0	0	0
SOUTH ATLANTIC									
Maryland:									
Baltimore.....	2	0	1	1	0	0	0	0	0
District of Columbia:									
Washington.....	0	0	1	1	1	0	0	0	0
Virginia:									
Richmond.....	0	0	0	0	0	0	0	1	0
West Virginia:									
Huntington.....	0	0	0	0	0	1	0	0	0
North Carolina:									
Raleigh.....	0	0	0	0	0	1	0	0	0
Georgia:									
Atlanta.....	0	0	0	0	1	0	0	0	0
EAST SOUTH CENTRAL									
Tennessee:									
Memphis.....	0	0	0	0	1	1	0	0	0
WEST SOUTH CENTRAL									
Louisiana:									
New Orleans.....	0	1	0	1	0	0	0	0	0
Shreveport.....	0	0	0	0	0	1	0	0	0
Texas:									
Dallas.....	0	0	0	0	2	2	0	0	0
Galveston.....	0	0	0	0	0	2	0	0	0
San Antonio.....	0	0	0	0	0	1	0	0	0
MOUNTAIN									
Colorado:									
Denver.....	0	0	0	0	0	0	0	1	1
Utah:									
Salt Lake City.....	2	2	0	0	0	0	0	0	0
PACIFIC									
Washington:									
Seattle.....	5	0	0	0	0	0	0	0	0
Spokane.....	2	0	0	0	0	0	0	0	0
Tacoma.....	1	0	0	0	0	0	0	0	0
Oregon:									
Portland.....	1	1	0	0	0	0	0	0	0
California:									
Sacramento.....	0	0	1	1	0	0	0	0	0
San Francisco.....	0	1	0	0	0	0	0	0	0

The following table gives the rates per 100,000 population for 103 cities for the five-week period ended March 13, 1926, compared with those for a like period ended March 14, 1925. The population figures used in computing the rates are approximate estimates as of July 1, 1925, and 1926, respectively, authoritative figures for many of the cities not being available. The 103 cities reporting cases had an estimated aggregate population of nearly 30,000,000 in 1925 and nearly 30,500,000 in 1926. The 96 cities reporting deaths had more than 29,250,000 estimated population in 1925 and more than 29,750,000 in 1926. The number of cities included in each group and the estimated aggregate populations are shown in a separate table below.

*Summary of weekly reports from cities, February 7 to March 13, 1926—Annual rates per 100,000 population—Compared with rates for the corresponding period of 1925<sup>1</sup>*

## DIPHTHERIA CASE RATES

	Week ended—									
	Feb. 14, 1925	Feb. 13, 1926	Feb. 21, 1925	Feb. 20, 1926	Feb. 28, 1925	Feb. 27, 1926	Mar. 7, 1925	Mar. 6, 1926	Mar. 14, 1925	Mar. 13, 1926
103 cities.....	<sup>a</sup> 163	<sup>a</sup> 136	153	137	<sup>a</sup> 163	135	156	<sup>b</sup> 124	162	<sup>c</sup> 114
New England.....	237	123	232	116	<sup>a</sup> 184	102	225	<sup>7</sup> 95	170	<sup>78</sup>
Middle Atlantic.....	164	140	162	132	177	118	166	<sup>a</sup> 111	213	112
East North Central.....	124	<sup>a</sup> 132	116	134	111	140	107	123	120	<sup>a</sup> 107
West North Central.....	251	163	203	202	289	241	273	<sup>a</sup> 235	195	214
South Atlantic.....	<sup>a</sup> 173	135	148	105	108	73	98	109	86	<sup>85</sup>
East South Central.....	63	47	74	57	47	52	58	47	37	<sup>10</sup> 28
West South Central.....	154	116	119	90	154	116	137	103	159	103
Mountain.....	92	173	157	218	148	209	83	73	102	109
Pacific.....	171	140	157	205	246	216	224	<sup>11</sup> 200	188	148

## MEASLES CASE RATES

103 cities.....	<sup>a</sup> 285	<sup>a</sup> 1,717	367	1,904	<sup>a</sup> 342	2,047	403	<sup>a</sup> 1,818	433	<sup>a</sup> 1,693
New England.....	637	2,347	695	2,769	<sup>a</sup> 569	2,188	633	<sup>72</sup> 457	522	1,989
Middle Atlantic.....	286	1,511	371	1,913	341	2,040	426	<sup>a</sup> 1,627	516	1,713
East North Central.....	479	<sup>a</sup> 2,633	637	2,899	689	3,080	738	2,691	695	<sup>a</sup> 2,132
West North Central.....	28	542	26	677	70	891	66	<sup>a</sup> 845	72	1,637
South Atlantic.....	<sup>a</sup> 92	3,112	104	3,276	77	3,109	94	2,697	138	2,267
East South Central.....	68	732	47	960	42	1,235	79	1,323	11	<sup>10</sup> 1,499
West South Central.....	48	13	13	9	48	9	28	17	84	39
Mountain.....	148	109	601	137	888	82	28	200	740	537
Pacific.....	28	107	61	102	58	162	102	<sup>11</sup> 282	105	326

<sup>1</sup> The figures given in this table are rates per 100,000 population, annual basis, and not the number of cases reported. Populations used are estimated as of July 1, 1925, and 1926, respectively.

<sup>a</sup> Wilmington, Del., not included.

<sup>b</sup> Madison, Wis., not included.

<sup>c</sup> Hartford, Conn., not included.

<sup>d</sup> Barre, Vt., Newark, N. J., Kansas City, Mo., and Tacoma, Wash., not included.

<sup>e</sup> Madison, Wis., and Covington, Ky., not included.

<sup>f</sup> Barre, Vt., not included.

<sup>g</sup> Newark, N. J., not included.

<sup>h</sup> Kansas City, Mo., not included.

<sup>i</sup> Covington, Ky., not included.

<sup>j</sup> Tacoma, Wash., not included.

Summary of weekly reports from cities, February 7 to March 13, 1926—Annual rates per 100,000 population—Compared with rates for the corresponding period of 1925—Continued

## SCARLET FEVER CASE RATES

	Week ended—									
	Feb. 14, 1925	Feb. 13, 1926	Feb. 21, 1925	Feb. 20, 1926	Feb. 28, 1925	Feb. 27, 1926	Mar. 7, 1925	Mar. 6, 1926	Mar. 14, 1925	Mar. 13, 1926
103 cities.....	<sup>2</sup> 385	<sup>3</sup> 298	376	309	<sup>4</sup> 390	285	381	<sup>5</sup> 290	415	<sup>6</sup> 303
New England.....	544	362	585	362	<sup>4</sup> 543	354	563	<sup>7</sup> 340	515	333
Middle Atlantic.....	406	197	374	208	411	187	370	<sup>8</sup> 175	437	192
East North Central.....	371	<sup>3</sup> 358	403	372	402	339	403	345	460	<sup>9</sup> 370
West North Central.....	695	770	719	772	711	695	752	<sup>8</sup> 815	697	893
South Atlantic.....	<sup>2</sup> 261	171	157	150	192	201	161	163	207	150
East South Central.....	194	124	205	244	168	171	179	187	326	<sup>10</sup> 149
West South Central.....	114	108	119	108	137	112	176	90	101	112
Mountain.....	370	218	240	237	305	100	277	337	194	218
Pacific.....	168	310	177	332	213	313	207	<sup>11</sup> 331	218	251

## SMALLPOX CASE RATES

103 cities.....	<sup>2</sup> 76	<sup>3</sup> 53	64	41	<sup>4</sup> 64	41	60	<sup>5</sup> 47	59	<sup>6</sup> 40
New England.....	0	0	0	0	<sup>4</sup> 0	0	0	<sup>7</sup> 0	0	0
Middle Atlantic.....	4	1	2	0	3	0	1	<sup>8</sup> 0	5	0
East North Central.....	33	<sup>3</sup> 23	52	33	26	18	40	23	37	<sup>9</sup> 67
West North Central.....	187	32	123	63	117	77	111	<sup>8</sup> 62	121	67
South Atlantic.....	<sup>2</sup> 92	81	63	51	40	66	48	100	56	49
East South Central.....	620	52	488	104	536	52	599	67	410	<sup>10</sup> 72
West South Central.....	132	112	79	142	110	133	70	194	70	142
Mountain.....	157	73	83	36	55	46	46	36	92	18
Pacific.....	210	461	204	194	298	245	196	<sup>11</sup> 254	235	262

## TYPHOID FEVER CASE RATES

103 cities.....	<sup>2</sup> 12	<sup>3</sup> 6	10	7	<sup>4</sup> 13	5	10	<sup>5</sup> 10	9	<sup>6</sup> 8
New England.....	19	5	0	7	<sup>4</sup> 13	5	7	<sup>7</sup> 12	5	5
Middle Atlantic.....	6	6	10	4	8	2	10	<sup>8</sup> 5	5	7
East North Central.....	6	<sup>3</sup> 4	6	5	6	1	8	5	3	<sup>9</sup> 4
West North Central.....	10	4	4	6	16	2	6	<sup>8</sup> 0	10	4
South Atlantic.....	<sup>2</sup> 20	15	8	4	19	11	8	6	23	8
East South Central.....	37	10	32	5	32	10	32	10	32	<sup>10</sup> 6
West South Central.....	44	0	40	22	40	30	26	39	26	4
Mountain.....	18	0	37	18	74	18	9	146	18	146
Pacific.....	11	13	22	16	8	8	14	<sup>11</sup> 17	14	0

## INFLUENZA DEATH RATES

96 cities.....	<sup>2</sup> 27	<sup>3</sup> 34	29	50	<sup>4</sup> 34	47	30	<sup>5</sup> 52	33	<sup>6</sup> 71
New England.....	26	19	17	2	<sup>4</sup> 30	19	17	<sup>7</sup> 12	34	24
Middle Atlantic.....	22	15	21	27	20	39	15	<sup>8</sup> 71	24	105
East North Central.....	16	<sup>3</sup> 11	17	11	23	14	25	14	31	<sup>9</sup> 32
West North Central.....	11	4	21	19	36	23	34	<sup>8</sup> 5	32	35
South Atlantic.....	<sup>2</sup> 52	64	52	137	46	100	50	47	31	77
East South Central.....	58	62	68	161	118	135	95	250	84	197
West South Central.....	116	302	145	238	140	227	135	132	102	104
Mountain.....	55	127	55	109	18	100	18	109	46	146
Pacific.....	4	35	11	96	25	35	25	<sup>11</sup> 54	15	21

<sup>1</sup> Wilmington, Del., not included.

<sup>2</sup> Madison, Wis., not included.

<sup>3</sup> Hartford, Conn., not included.

<sup>4</sup> Barre, Vt., Newark, N. J., Kansas City, Mo., and Tacoma, Wash., not included.

<sup>5</sup> Madison, Wis., and Covington, Ky., not included.

<sup>6</sup> Barre, Vt., not included.

<sup>7</sup> Newark, N. J., not included.

<sup>8</sup> Kansas City, Mo., not included.

<sup>9</sup> Covington, Ky., not included.

<sup>10</sup> Tacoma, Wash., not included.

*Summary of weekly reports from cities, February 7 to March 13, 1926—Annual rates per 100,000 population—Compared with rates for the corresponding period of 1925—Continued*

## PNEUMONIA DEATH RATES

	Week ended—									
	Feb. 14, 1925	Feb. 13, 1926	Feb. 21, 1925	Feb. 20, 1926	Feb. 28, 1925	Feb. 27, 1926	Mar. 7, 1925	Mar. 6, 1926	Mar. 14, 1925	Mar. 13, 1926
96 cities.....	<sup>1</sup> 212	<sup>2</sup> 213	207	259	<sup>4</sup> 190	260	196	<sup>5</sup> 271	214	<sup>3</sup> 225
New England.....	230	156	232	175	<sup>4</sup> 235	165	218	<sup>7</sup> 188	220	217
Middle Atlantic.....	230	212	215	289	181	316	209	<sup>8</sup> 361	213	460
East North Central.....	158	<sup>3</sup> 161	173	180	160	179	182	206	226	<sup>3</sup> 289
West North Central.....	133	77	127	125	150	106	136	<sup>9</sup> 96	169	146
South Atlantic.....	<sup>2</sup> 247	406	232	486	275	451	251	340	232	301
East South Central.....	289	223	294	296	268	301	247	311	336	389
West South Central.....	440	553	387	553	203	378	218	387	169	255
Mountain.....	268	328	203	173	259	410	120	237	203	300
Pacific.....	171	138	189	174	145	142	124	<sup>11</sup> 126	138	92

<sup>1</sup> Wilmington, Del., not included.

<sup>2</sup> Madison, Wis., not included.

<sup>3</sup> Hartford, Conn., not included.

<sup>4</sup> Barre, Vt., Newark, N. J., Kansas City, Mo., and Tacoma, Wash., not included.

<sup>5</sup> Barre, Vt., not included.

<sup>6</sup> Newark, N. J., not included.

<sup>7</sup> Kansas City, Mo., not included.

<sup>8</sup> Tacoma, Wash., not included.

*Number of cities included in summary of weekly reports, and aggregate population of cities in each group, approximated as of July 1, 1925 and 1926, respectively*

Group of cities	Number of cities reporting cases	Number of cities reporting deaths	Aggregate population of cities reporting cases		Aggregate population of cities reporting deaths	
			1925	1926	1925	1926
Total.....	103	96	29,944,996	30,473,129	29,251,658	29,764,201
New England.....	12	12	2,176,124	2,206,124	2,176,124	2,206,124
Middle Atlantic.....	10	10	10,346,970	10,476,970	10,346,970	10,476,970
East North Central.....	16	16	7,481,656	7,655,436	7,481,656	7,655,436
West North Central.....	14	11	2,594,962	2,634,662	2,461,380	2,499,036
South Atlantic.....	21	21	2,716,070	2,776,070	2,716,070	2,776,070
East South Central.....	7	7	993,103	1,004,953	993,103	1,004,953
West South Central.....	8	6	1,184,057	1,212,057	1,078,198	1,103,695
Mountain.....	9	9	568,912	572,773	563,912	572,773
Pacific.....	6	4	1,888,142	1,934,084	1,434,245	1,460,144

# FOREIGN AND INSULAR

## THE FAR EAST

*Report for week ended February 27, 1926.*—The following report for the week ended February 27, 1926, was transmitted by the Far Eastern Bureau of the health section of the League of Nations' Secretariat, located at Singapore, to the headquarters at Geneva:

Port	Plague		Cholera		Small-pox		Port	Plague		Cholera		Small-pox	
	Cases	Deaths	Cases	Deaths	Cases	Deaths		Cases	Deaths	Cases	Deaths	Cases	Deaths
Calcutta.....	0	0	52	30	19	0	Osaka.....	0	0	0	0	0	0
Bombay.....	1	0	0	25	16	0	Nilgata.....	0	0	0	0	0	0
Madras.....	0	0	2	9	1	0	Tsuruga.....	0	0	0	0	0	0
Rangoon.....	11	0	0	19	2	0	Hakodate.....	0	0	0	0	0	0
Karachi.....	2	2	0	3	0	0	Keelung.....	0	0	0	0	0	0
Colombo.....	2	1	0	0	1	0	Fusan.....	0	0	0	0	0	0
Basra.....	0	0	0	6	6	0	Chemulpo.....	0	0	0	0	0	0
Singapore.....	0	0	0	1	0	0	Dairen.....	0	0	0	0	0	3
Port Swettenham.....	0	0	0	0	0	0	Adelaide.....	0	0	0	0	0	0
Penang.....	0	0	0	0	0	0	Brisbane.....	0	0	0	0	0	0
Batavia.....	0	0	0	0	0	0	Fremantle.....	0	0	0	0	0	0
Surabaya.....	0	0	0	1	0	0	Melbourne.....	0	0	0	0	0	0
Samarang.....	2	2	0	0	0	0	Sydney.....	0	0	0	0	0	0
Cheribon.....	0	3	0	0	0	0	Rockhampton.....	0	0	0	0	0	0
Belawan Deli.....	0	0	0	0	0	0	Townsville.....	0	0	0	0	0	0
Palembang.....	0	0	0	0	0	0	Port Darwin.....	0	0	0	0	0	0
Padang (Sumatra).....	0	0	0	0	0	0	Broome.....	0	0	0	0	0	0
Sabang (Rho).....	0	0	0	0	0	0	Port Moresby.....	0	0	0	0	0	0
Makassar.....	0	0	0	0	0	0	Auckland.....	0	0	0	0	0	0
Menada.....	0	0	0	0	0	0	Wellington.....	0	0	0	0	0	0
Banjermasin.....	0	0	0	0	0	0	Christchurch.....	0	0	0	0	0	0
Balik-papan.....	0	0	0	0	0	0	Invercargill.....	0	0	0	0	0	0
Pontianak (Borneo).....	0	0	0	0	0	0	Noumea.....	0	0	0	0	0	0
Sandakan (North Borneo).....	0	0	0	0	0	0	Honolulu.....	0	0	0	0	0	0
Kuching (Sarawak).....	0	0	0	14	1	0	Suez.....	0	0	0	0	0	0
Timor Dilly.....	0	0	0	0	0	0	Tor Quarantine Station.....	0	0	0	0	0	0
Manila.....	0	0	1	0	0	0	Alexandria.....	0	0	0	0	0	0
Zamboanga.....	0	0	0	0	0	0	Port Said.....	0	0	0	0	0	0
Bangkok.....	0	0	41	33	10	6	Mombasa (Kenya).....	0	0	0	0	0	0
Saigon and Cholon.....	0	0	0	0	0	0	Zanzibar.....	0	0	0	0	0	0
Haiphong.....	0	0	0	0	0	0	Massowah.....	0	0	0	0	0	0
Tourane.....	0	0	0	0	0	0	Djibuti.....	0	0	0	0	0	0
Hongkong.....	0	0	0	0	0	0	Berbera.....	0	0	0	0	0	0
Shanghai.....	0	0	0	0	11	0	Mozambique.....	0	0	0	0	0	0
Amoy.....	0	0	0	4	2	0	Durban.....	0	0	0	0	0	0
Nagasaki.....	0	0	0	0	0	0	East London.....	0	0	0	0	0	0
Yokohama.....	0	0	0	14	0	0	Port Elizabeth.....	0	0	0	0	0	0
Shimonoseki.....	0	0	0	0	0	0	Cape Town.....	0	0	0	0	0	0
Mohi.....	0	0	0	1	0	0	Port Louis (Mauritius).....	0	0	0	0	0	0
Kobe.....	0	0	0	0	0	0	Seychelles.....	0	0	0	0	0	0



## CANADA

*Communicable diseases—Week ended March 13, 1926.*—The following table shows the number of cases of certain communicable diseases in seven Provinces of Canada during the week ended March 13, 1926. The information was supplied by the Canadian Ministry of Health.

	Nova Scotia	New Brunswick	Que- bec	Ont- ario	Mani- toba	Sas- katch- ewan	Al- berta	Total
Influenza.....	34	-----	-----	-----	2	-----	-----	36
Lethargic encephalitis.....	-----	-----	-----	1	-----	-----	-----	1
Smallpox.....	-----	-----	6	6	-----	3	1	10
Typhoid fever.....	-----	1	8	10	-----	-----	4	23

## CUBA

*Communicable diseases—Habana—February, 1926.*—During February, 1926, communicable diseases were reported at Habana, Cuba, as follows:

Disease	New cases	Deaths	Re- main- ing under treat- ment Feb. 28, 1926	Disease	New cases	Deaths	Re- main- ing under treat- ment Feb. 28, 1926
Chicken pox.....	46	-----	17	Measles.....	107	1	36
Diphtheria.....	17	1	4	Paratyphoid fever.....	1	-----	1
Leprosy.....	-----	1	7	Scarlet fever.....	30	-----	19
Malaria.....	32	-----	11	Typhoid fever <sup>1</sup> .....	40	3	34

<sup>1</sup> Many of these cases from the interior.

## ECUADOR

*Plague—Guayaquil—February, 1926.*—During the month of February, 1926, 16 cases of plague with 7 deaths were reported at Guayaquil, Ecuador.

*Plague-infected rats.*—During the same period, out of 19,586 rats examined, 172 rats were found plague infected.

## GREAT BRITAIN (SCOTLAND)

*Measles—Glasgow—January and February, 1926.*—An outbreak of measles has been reported at Glasgow, Scotland, as follows: Month of January, 1926, 4,519 cases with 65 deaths; February, 1926, number of cases 5,986. The type of the disease was mild.

*Other diseases.*—Among other diseases reported were 15 fatal cases of influenza and 25 of whooping cough in January, 1926; 218 cases of diphtheria and 361 cases of scarlet fever in February.

Population, estimated, 1,034,500.

## MADAGASCAR

*Plague—December, 1925—January 1-15, 1926.*—During the month of December, 1925, 400 cases of plague with 373 deaths were reported in the island of Madagascar, and from January 1 to 15, 1926, 161 cases with 151 deaths. The types of the disease were bubonic, pneumonic, and septicemic. For distribution of occurrence according to locality see page 641.

## MEXICO

*Malaria—Typhoid fever—Los Mochis.*—Malaria and typhoid fever were reported continuously present at Los Mochis, Mexico, from September 27, 1925, to February 20, 1926.

## VIRGIN ISLANDS

*Communicable diseases—February, 1926.*—During the month of February, 1926, communicable diseases were notified in the Virgin Islands of the United States as follows:

Disease and island	Cases	Remarks
St. Thomas and St. John:		
Chancroid.....	5	
Dengue.....	2	
Gonorrhea.....	4	St. John, 1.
Influenza.....	1	St. John, 1.
Malaria.....	1	Malignant tertian. Imported.
Syphilis.....	2	Larynx, 1; secondary, 1.
Tetanus.....	1	
Tuberculosis.....	3	
St. Croix:		
Dysentery.....	1	Entamebic.
Gonococcus infection.....	1	
Syphilis.....	5	Secondary.

## YUGOSLAVIA

*Communicable diseases—January 1-February 21, 1926.*—During the period from January 1 to February 21, 1926, communicable diseases were reported in Yugoslavia as follows:

Diseases	Cases	Deaths	Diseases	Cases	Deaths
Anthrax.....	35	5	Rabies.....	1	1
Cerebrospinal meningitis.....	18	11	Relapsing fever.....	1	
Diphtheria and croup.....	293	48	Scarlet fever.....	1,004	190
Dysentery.....	41	1	Tetanus.....	13	10
Glanders.....	3	3	Typhoid fever.....	385	56
Leprosy.....	2	1	Typhus fever.....	81	12
Lethargic encephalitis.....	5	4	Whooping cough.....	403	17
Measles.....	2,032	28			

**CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER**

The reports contained in the following tables must not be considered as complete or final as regards either the lists of countries included or the figures for the particular countries for which reports are given.

**Reports Received During Week Ended April 2, 1926<sup>1</sup>****CHOLERA**

Place	Date	Cases	Deaths	Remarks
Chosen.....	November, 1925....	6	5	
India:				
Calcutta.....	Jan. 31-Feb. 6.....	41	34	
Indo-China:				
French Settlements.....	December, 1925.....	880	712	
Japan.....	Nov. 29-Dec. 26....	31		
Siam:				
Bangkok.....	Jan. 31-Feb. 6.....	22	10	

**PLAGUE**

Ecuador:				
Guayaquil.....	February.....	16	7	Rats taken: 19,586; plague-infected rats found, 172.
Iraq:				
Bagdad.....	Jan. 17-23.....	7	3	
Java:				
Batavia.....	Jan. 30-Feb. 5.....	78	76	
Cheribon.....	Jan. 17-23.....	3	3	
Madagascar.....				Dec. 1-15, 1925: Cases, 194; deaths, 179.
Do.....				Dec. 16-31, 1925: Cases, 206; deaths, 194. Total: Cases, 400; deaths, 373.
Do.....				Jan. 1-15, 1926: Cases, 161; deaths, 151. Bubonic, pneumonic, septicemic.
Province—				
Ambositra.....	Dec. 16-31.....	9	7	
Itasy.....	do.....	21	21	
Moramanga.....	do.....	24	23	
Tananarive.....	do.....	152	143	
Province—				
Ambositra.....	Jan. 1-15.....	2	2	
Itasy.....	do.....	29	29	
Moramanga.....	do.....	15	15	
Tananarive—				
Tananarive Town.....	do.....	4	4	
Other localities.....	do.....	111	100	
Nigeria.....	November.....	63	48	
Russia.....	October.....	9		
Siam.....	Nov. 1-Dec. 26....	12	10	

**SMALLPOX**

Algeria:				
Algiers.....	Feb. 1-10.....	15		
Arabia:				
Aden.....	Feb. 14-20.....	3		
Brazil:				
Manaos.....	Dec. 1-31.....		12	
Do.....	Jan. 31-Feb. 20....		6	
Rio de Janeiro.....	Jan. 17-Feb. 6.....	94	71	
Canada:				
Alberta.....				Mar. 7-13, 1925: Cases, 1.
Manitoba.....				
Winnipeg.....	Mar. 14-20.....	1		
Ontario.....				Mar. 7-13, 1926: Cases, 6.
Kingston.....	Mar. 8-14.....	1		
Saskatchewan.....				Mar. 7-13, 1926: Cases, 3.
Regina.....	Mar. 7-13.....	2		
Chile:				
Punta Arenas.....	Dec. 13-26.....		8	
Do.....	Dec. 27-Jan. 2.....		4	
China:				
Foochow.....	Jan. 31-Feb. 6.....			Present.
Hongkong.....	do.....	2	3	
Manchuria—				
Dairen.....	Jan. 18-31.....	13	5	
Harbin.....	Feb. 12-18.....	1		

<sup>1</sup>From medical officers of the Public Health Service, American consuls, and other sources.

# **CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued**

## **Reports Received During Week Ended April 2, 1926—Continued**

### **SMALLPOX—Continued**

Place	Date	Cases	Deaths	Remarks
China—Continued.				
South Manchuria—				
Changchun.....	Feb. 14-20.....	3	—	Railway line.
Kungchuling.....	do.....	1	—	Do.
Shanghai.....	Feb. 7-20.....	7	17	Cases, foreign residents in settlement and vicinity; deaths, Chinese residents in settlement. <sup>1</sup>
France.....	December, 1925.....	77	—	
Gold Coast.....	November-December.....	23	1	
Great Britain.....				
England and Wales.....	Feb. 21-Mar. 6.....	491	—	
London.....	Jan. 31-Feb. 6.....	3	1	
Newcastle-On-Tyne.....	Feb. 21-27.....	3	—	
Sheffield.....	Feb. 28-Mar. 6.....	3	—	
Greece.....				
Athens.....	Dec. 1-31.....	1	—	
Do.....	Feb. 1-28.....	27	2	
Saloniki.....	Feb. 16-22.....	—	1	
India.....				
Bombay.....	Jan. 31-Feb. 13.....	30	16	
Calcutta.....	Jan. 31-Feb. 6.....	43	22	
Karachi.....	Feb. 7-13.....	9	3	
Indo-China (French):				
Saigon.....	Jan. 18-Feb. 7.....	4	—	Including 100 square kilometers of surrounding country.
Italy.....	Dec. 6-Jan. 2.....	14	—	
Do.....	Jan. 3-16.....	12	—	
Catania.....	Feb. 22-28.....	—	1	
Mexico:				
Torreon.....	Feb. 1-28.....	—	21	
Nigeria.....	November.....	136	—	
Portugal:				
Lisbon.....	Jan. 17-Feb. 13.....	47	—	
Rumania.....	August-October.....	3	—	
Russia.....	July-October.....	1,563	—	Later than previously published reports.
Siam:				
Bangkok.....	Jan. 31-Feb. 6.....	5	2	
Spain:				
Madrid.....	Jan. 1-31.....	—	1	
Valencia.....	Feb. 28-Mar. 5.....	1	—	
Switzerland.....	Dec. 27-Jan. 30.....	37	—	
Trinidad.....	Feb. 6-20.....	2	—	Type, alastim.

### **TYPHUS FEVER**

Algeria:				
Algiers.....	December.....	21	1	Jan. 1-31, 1926: Cases, 1.
Bulgaria.....	December.....	—	—	
China:				
Antung.....	Feb. 1-21.....	5	—	
Czechoslovakia.....	December.....	52	1	
Greece.....				December, 1925: Cases, 12.
Athens.....	Feb. 1-28.....	19	3	
Saloniki.....	Feb. 2-8.....	1	—	
Hungary.....	November-December.....	13	—	
Mexico:				
Mexico City.....	Feb. 28-Mar. 6.....	13	—	Including municipalities in Federal District.
Morocco.....	December.....	54	—	
Norway.....	do.....	1	—	
Poland.....	Dec. 20-Jan. 2.....	103	6	
Do.....	Jan. 3-16.....	190	14	
Rumania.....	September-October.....	74	7	
Russia.....	July-October.....	6,035	—	Later than previously published reports.
Turkey:				
Constantinople.....	Feb. 9-22.....	5	3	From unofficial sources. (Press.)
Union of South Africa:				
Cape Colony.....	Jan. 31-Feb. 6.....	—	—	Outbreaks.
Yugoslavia.....				Jan. 1-Feb. 21, 1926: Cases, 81; deaths, 12.

<sup>1</sup> Population, foreign (estimated), 30,070; Chinese (estimated), 799,172.

# CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued

Reports Received During Week Ended April 2, 1926—Continued

## YELLOW FEVER

Gold Coast.....	November-December.	2	2
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Reports Received from December 26, 1925, to March 26, 1926<sup>1</sup>

## CHOLERA

Place	Date	Cases	Deaths	Remarks
Chosen.....	October, 1925.....	6	—	
India.....				Oct. 18, 1925, to Jan. 2, 1926: Cases, 21, 316; deaths, 12,371.
Calcutta.....	Nov. 1-28.....	101	89	Jan. 3-16, 1926: Cases, 4,680; deaths, 2,625.
Do.....	Dec. 6-26.....	—	54	
Do.....	Dec. 27-Jan. 16.....	—	41	
Do.....	Jan. 24-30.....	34	29	
Madras.....	Nov. 15-Jan. 2.....	174	70	
Do.....	Jan. 3-Feb. 13.....	75	46	
Rangoon.....	Nov. 8-Dec. 5.....	4	4	
Do.....	Jan. 24-30.....	1	1	
Indo-China.....				September, 1925: Cases, 9; deaths, 5. September, 1924: Cases, 7; deaths, 4. (European cases, 2.)
Province—				
Annam.....	Sept. 1-30.....	2	2	
Cochin China.....	do.....	5	3	
Saigon.....	Jan. 4-17.....	2	2	Including 100 square kilometers of surrounding country.
Tonkin.....	September, 1925.....	2	—	
Japan.....	Aug. 30-Oct. 17.....	400	—	
Do.....	Oct. 25-Nov. 23.....	82	—	
Philippine Islands.....				
Manila.....	Nov. 9-Jan. 3.....	15	10	
Do.....	Jan. 4-Feb. 6.....	—	23	
Province—				
Bataan.....	Nov. 30-Dec. 26.....	29	25	
Do.....	Jan. 2-16.....	1	1	
Bulacan.....	Oct. 18-Nov. 7.....	92	64	
Do.....	Nov. 23-Dec. 31.....	200	88	
Do.....	Jan. 2-16.....	5	5	
Laguna.....	Nov. 23-Dec. 26.....	18	14	
Nueva Ecija.....	do.....	6	2	
Pampanga.....	Nov. 1-7.....	1	1	
Do.....	Nov. 23-Dec. 31.....	113	85	
Do.....	Jan. 2-23.....	27	24	
Rizal.....	Sept. 27-Nov. 21.....	75	21	
Do.....	Dec. 21-30.....	14	11	
Romblon.....	Dec. 7-13.....	23	12	
Russia.....	May-June.....	7	—	
Do.....	July-August.....	4	—	
Siam.....				
Bangkok.....	Oct. 4-Nov. 14.....	108	68	
Do.....	Nov. 22-Dec. 26.....	270	149	
Do.....	Dec. 27-Jan. 30.....	140	102	
On vessel:				
Steamship.....	Oct. 3.....	9	—	Arrived at Bangkok, Siam; Cases in coolie passengers.

## PLAGUE

Argentina.....				Jan. 21-30, 1926: 6 cases, occurring in interior provinces of Salta and Santa Fe.
Buenos Aires.....	Jan. 24-30.....	1	—	
Brazil:				
Bahia.....	Nov. 8-Dec. 27.....	3	1	
Do.....	Dec. 27-Jan. 30.....	4	2	
Santos.....	Dec. 8-21.....	—	2	
British East Africa:				
Kenya—				
Kisumu.....	Nov. 22-Dec. 5.....	1	2	
Uganda Protectorate.....	September-November.	333	308	
Canary Islands:				
La Laguna.....	Dec. 24.....	3	2	
Las Palmas.....	do.....	1	—	
Do.....	Jan. 7.....	1	1	
Santa Cruz de Tenerife.....	Dec. 18-27.....	3	—	
Do.....	Dec. 28-Feb. 1.....	3	—	

<sup>1</sup> From medical officers of the Public Health Service, American consuls, and other sources.

# **CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued**

**Reports Received from December 26, 1925, to March 26, 1926—Continued**

## **PLAGUE—Continued**

Place	Date	Cases	Deaths	Remarks
Celebes:				
Makassar	Dec. 29-Jan. 26	7	7	Netherlands East Indies.
Ceylon:				
Colombo	Nov. 15-Dec. 5	3	3	1 plague rodent
Do.	Dec. 27-Jan. 16	2	2	
Do.	Jan. 24-30			Do.
China:				
Nanking	Nov. 15-Jan. 23			Prevalent.
Ecuador:				
Eloy Alfaro	Jan. 1-15	1		
Guayaquil	Nov. 1-Dec. 31	31	12	
Do.	Jan. 1-31	34	14	Rats taken, Nov. 1-Dec. 31, 1925, 49,370; rats found infected, 281.
Recreo (country estate)	do	1		Rats taken, Jan. 1-31, 1926, 24,672; rats found infected, 234.
Egypt:				Jan. 1-Dec. 9, 1925: Cases, 138.
Beni Suef	Nov. 18	1	1	Corresponding period, 1924: Cases, 365.
Fayoum Province	Dec. 3-9	1	1	
Greece:				
Athens	Nov. 1-30	18	4	Including Piræus.
Do.	Jan. 1-31	14	3	
Herakleion	Feb. 4	1		On island of Crete.
Patras	Nov. 13-Dec. 12	4	1	
Hawaii Territory:				
Panilo				Jan. 29, 1926: Plague-infected rat found in vicinity.
India:				Oct. 18, 1925, to Jan. 2, 1926: Cases, 15,135; deaths, 10,677.
Bombay	Dec. 6-12	1	1	Jan. 3-16, 1926: Cases, 4,680; deaths, 2,625.
Do.	Jan. 3-9	2	2	
Calcutta	Dec. 6-12	1	1	
Karachi	Nov. 1-Dec. 19	4	3	
Madras	Oct. 25-Nov. 7	75	41	
Do.	Nov. 15-21	35	22	
Do.	Dec. 20-26	108	64	
Do.	Jan. 3-9	135	83	
Do.	Jan. 17-23	113	73	
Rangoon	Oct. 25-Dec. 26	23	15	
Do.	Dec. 27-Jan. 30	17	15	
Indo-China:				September, October, 1925: Cases, 25; deaths, 23.
Province—				
Cambodia	Sept. 1-30	11	11	
Cochin China	September-October	14	12	
Iraq:				
Bagdad	Dec. 13-Jan. 2	7	3	
Do.	Jan. 10-30		5	
Java:				
Batavia	Oct. 24-Nov. 6	94	89	Province.
Do.	Nov. 14-Jan. 1	315	297	
Do.	Jan. 2-29	182	174	
Cheribon	Sept. 27-Oct. 17	166		
Do.	Nov. 15-Dec. 19	96		
Djakakarta	Oct. 20-Nov. 9			Epidemic in 1 locality.
Kediri	Dec. 7			Do.
Pekalongan	Sept. 27-Oct. 17		42	
Do.	Nov. 8-Dec. 19		131	
Rembang	Oct. 20			Do.
Surabaya	Oct. 11-Dec. 26	59	59	
Do.	Dec. 27-Jan. 9	16	16	
Tegal	Sept. 27-Oct. 17	6	6	
Do.	Nov. 8-Dec. 19		29	
Madagascar:				Nov. 1-30, 1925: Cases, 232; deaths, 220.
Province—				
Itasy	Sept. 16-Oct. 31	20	20	
Do.	Nov. 16-30	13	13	
Morananga	Sept. 16-Nov. 30	25	25	
Tananarive	do	368	341	
Town—				
Fort Dauphin	do	6	3	
Tamatave (port)	Sept. 16-30	3	2	
Do.	Oct. 16-Nov. 30	9	9	
Tananarive	Sept. 16-30	2	2	
Do.	Nov. 1-30	11	11	
Mauritius Island	Sept. 20-Dec. 26	21	18	
Pamplemousses	Oct. 1-Nov. 30	3	2	
Port Louis	do	4	1	
Rivière du Rempart	do	2		

# **CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued**

**Reports Received from December 26, 1925, to March 26, 1926—Continued**

## **PLAGUE—Continued**

Place	Date	Cases	Deaths	Remarks
Nigeria.....	August-October....	496	371	
Peru:				
Huacho.....	Jan. 26.....	15		Port 60 miles north of Callao.
Lima.....	Jan. 1-31.....	20		In hospital. Some cases in prov-
Mollendo.....	.....do.....			inces.
				12 or 15 cases reported unoffi-
				cially.
Russia.....	May-June.....	67		
Do.....	July-September....	157		
Senegal.....	September-Octo-	45	25	
	ber.....			
Siam.....	Aug. 23-Oct. 31....	53	43	
Bangkok.....	Nov. 15-23.....	3	3	
Do.....	Jan. 3-30.....	38	33	
Straits Settlements:				
Singapore.....	Nov. 1-Dec. 5.....	8	8	
Do.....	Jan. 3-9.....	2	2	
Syria:				
Beirut.....	Nov. 11-20.....	1		
Union of South Africa:				
Cape Province—				
Kimberley district.....	Dec. 13-19.....	1		European.
Middleburg district.....	Dec. 6-12.....	1		Native. On farm.
Steynsburg district.....	Nov. 15-21.....	1		
Orange Free State—				
Boshof district.....	Nov. 29-Dec. 5....	1	1	In native.
Bothaville district.....	Dec. 6-12.....	1	1	Native. On farm.
On vessel:				
Steamship Cld.....				Jan. 29, 1926. At Buenaventura,
				Columbia. Rat was killed
				while jumping ashore from
				vessel. (See Public Health
				Reports, Feb. 26, 1926, p. 408.)

## **SMALLPOX**

Algeria:				
Algiers.....	Nov. 21-Dec. 31....	177		
Do.....	Jan. 1-10.....	64		
Do.....	Jan. 21-31.....	36		
Arabia:				
Aden.....	Nov. 29-Dec. 5.....	1		Imported.
Do.....	Jan. 10-Feb. 6.....	3	1	
Argentina:				
Rosario.....	October.....		1	
Australia:				
Queensland—				
Brisbane.....	Dec. 9-15.....	1		
Bahamas.....				In Nassau district. Stated to
				have been imported. Re-
				ported under date of Feb. 23,
				1926.
Brazil:				
Para.....	Jan. 10-30.....	25	5	
Rio de Janeiro.....	Nov. 1-23.....	134	72	
Do.....	Dec. 6-29.....	65	26	
Do.....	Dec. 27-Jan. 16....	37	29	
British East Africa:				
Kenya—				
Mombasa.....	Nov. 15-Dec. 19....	14	6	
Do.....	Dec. 27-Jan. 2.....	1		From mainland.
Uganda Protectorate.....	Sept. 1-Oct. 31....	8	4	
British South Africa:				
Northern Rhodesia.....	Jan. 5-11.....	2		
Southern Rhodesia.....	Nov. 13-Dec. 23....	3		
Canada.....				Sept. 13-Jan. 2: In 7 Provinces,
				186 cases. Jan. 3-Feb. 27, 1926:
				Cases, 277.
Alberta.....	Jan. 10-Feb. 27....	29		
Calgary.....	Dec. 13-19.....	1		From Drumheller, vicinity of
British Columbia—				Calgary.
Vancouver.....	Jan. 4-10.....	1		

# **CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued**

**Reports Received from December 26, 1925, to March 26, 1926—Continued**

## **SMALLPOX—Continued**

Place	Date	Cases	Deaths	Remarks
Canada—Continued				
Manitoba.....	Jan. 3-Feb. 27.....	26	—	
Winnipeg.....	Dec. 13-19.....	2	—	
Do.....	Jan. 3-Feb. 6.....	9	—	
New Brunswick—				
Northumberland.....	Dec. 6-13.....	1	—	
Ontario.....	December, 1925.....	32	1	
Do.....	Jan. 1-Feb. 13.....	103	—	
Do.....	Feb. 21-27.....	19	—	
Admaston.....	Jan. 1-Feb. 28.....	16	—	Township.
Alice and Fraser.....	Feb. 1-28.....	6	—	Do.
King.....	do.....	7	—	Do.
Wilmot.....	do.....	6	—	Do.
Belleville.....	do.....	4	—	
Kitchener.....	do.....	26	—	
North Bay.....	do.....	3	—	
Ottawa.....	Dec. 6-12.....	2	—	
Do.....	Jan. 3-Feb. 6.....	2	—	
Toronto.....	Dec. 27-Jan. 2.....	1	—	
Do.....	Jan. 3-Feb. 28.....	25	—	
Trenton.....	do.....	15	—	
Saskatchewan.....	Jan. 3-Feb. 13.....	39	—	
Do.....	Feb. 21-27.....	10	—	
Moose Jaw.....	do.....	2	—	
Regina.....	Jan. 24-30.....	1	—	
Saskatoon.....	Feb. 14-20.....	1	—	
Ceylon:				
Colombo.....	Dec. 6-12.....	1	—	Port case.
Do.....	Jan. 3-Feb. 6.....	5	—	
China:				
Amoy.....	Oct. 25-Dec. 19.....	—	1	
Do.....	Jan. 10-30.....	—	—	Present.
Antung.....	Dec. 7-20.....	2	—	
Chungking.....	Nov. 15-Feb. 6.....	—	—	Do.
Foochow.....	Nov. 1-Jan. 23.....	—	—	Do.
Hankow.....	Nov. 14-Dec. 26.....	4	—	
Do.....	Jan. 10-16.....	1	—	
Hongkong.....	Nov. 22-Dec. 26.....	4	—	
Do.....	Jan. 3-30.....	4	—	
Manchuria—				
An-shan.....	Dec. 6-12.....	1	—	
Do.....	Jan. 10-Feb. 13.....	6	—	South Manchurian Railway.
Changchun.....	do.....	11	—	Do.
Dairen.....	Oct. 19-Dec. 27.....	73	15	
Do.....	Dec. 28-Jan. 17.....	27	6	
Changchun.....	Jan. 31-Feb. 6.....	4	—	
Fushun.....	Jan. 17-23.....	1	—	Do.
Harbin.....	Jan. 1-7.....	1	—	
Kai-yuan.....	Jan. 10-30.....	4	—	Do.
Kungchuling.....	Jan. 31-Feb. 6.....	1	—	
Lio-yang.....	Jan. 17-23.....	1	—	Do.
Mukden.....	Oct. 24-Nov. 15.....	1	—	Do.
Do.....	Jan. 24-Feb. 13.....	2	—	Do.
Tieh-ling.....	do.....	2	—	
Nanking.....	Nov. 21-Dec. 26.....	—	—	Present.
Do.....	Dec. 27-Feb. 13.....	—	—	Do.
Shanghai.....	Oct. 25-Jan. 2.....	37	36	
Do.....	Jan. 3-Feb. 6.....	39	77	Cases, foreign only.
Swatow.....	Nov. 22-Feb. 13.....	—	—	Prevalent.
Tientsin.....	Nov. 1-Dec. 19.....	2	—	
Do.....	Jan. 23-30.....	1	—	
Chosen:				
Seishin.....	Jan. 1-31.....	5	2	
Egypt:				
Alexandria.....	Dec. 3-31.....	5	2	
Do.....	Jan. 8-14.....	2	1	
Do.....	Jan. 29-Feb. 11.....	4	1	
Estonia.....				November, 1925: Cases, 3.
France.....				September-October, 1925: Cases, 91.
Gold Coast.....	September, 1925.....	14	4	



# **CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued**

**Reports Received from December 26, 1925, to March 26, 1926—Continued**

## **SMALLPOX—Continued**

Place	Date	Cases	Deaths	Remarks
<b>Great Britain:</b>				
England and Wales				Nov. 15–Dec. 26, 1925: Cases, 790.
Hull	Dec. 27–Jan. 23	29	1	Dec. 27–Feb. 20, 1926: Cases, 3,411.
Do.	Feb. 7–27	7		
Leeds	Jan. 14–Feb. 6	4		
Newcastle-on-Tyne	Nov. 29–Dec. 19	6		
Do.	Dec. 27–Feb. 20	21		
Nottingham	Nov. 22–Dec. 26	9		
Do.	Dec. 27–Jan. 9	2		
Sheffield	Nov. 22–Dec. 12	7		
Do.	Dec. 20–26	3		
Do.	Dec. 27–Feb. 6	12		
South Shields	Feb. 9			Reported present in severe form.
Greece				Oct. 1–31, 1925: Cases, 15.
Athens	Nov. 1–30	17	1	
Do.	Jan. 1–31	23	1	
<b>India</b>				
Bombay	Nov. 8–Dec. 26	26	20	Oct. 18–Dec. 26, 1925: Cases, 19,472; deaths, 4,440. Dec. 27, 1925–Jan. 16, 1926: Cases, 18,016; deaths, 7,378.
Do.	Dec. 27–Jan. 30	71	37	
Calcutta	Nov. 29–Dec. 26	48	25	
Do.	Dec. 27–Jan. 30	176	103	
Karachi	Nov. 1–21	23		
Do.	Nov. 29–Dec. 5	4	2	
Do.	Dec. 13–19	3		
Do.	Dec. 29–Feb. 13	29	12	
Madras	Jan. 24–30	4	1	
Rangoon	Oct. 25–Nov. 28	3		
Do.	Dec. 6–26	4	1	
Do.	Dec. 27–Jan. 16	13	1	
Do.	Jan. 24–30	6		
<b>Indo-China</b>				
Province—				September–October, 1925: Cases, 204; deaths, 62. September, 1924: Cases, 78; deaths, 22.
Annam	Sept. 1–Oct. 31	90	23	September, 1924: Cases, 8; deaths, 2.
Cambodia	do.	72	30	September, 1924: Cases, 16; deaths, 1.
Cochin China	do.	61	30	September, 1924: Cases, 43; deaths, 19.
Saigon	Dec. 21–27	2	1	
Do.	Jan. 1–17	2		Including 100 kilometers of surrounding country.
Tonkin	Dec. 2–Jan. 2	22		
<b>Iraq</b>				
Bagdad	Nov. 1–Dec. 26	19	15	Sept. 6–Oct. 17, 1925: Cases, 81; deaths, 40.
Do.	Dec. 27–Jan. 30	11	4	
<b>Italy</b>				
Catania	Feb. 15–21	1		Aug. 2–Oct. 31, 1925: Cases, 38.
Genoa	Jan. 21–Feb. 10	4		
Rome	Oct. 12–25	1		
<b>Jamaica</b>				
Kingston	Nov. 29–Dec. 26	43		Nov. 29–Dec. 26, 1925: Cases, 95. Dec. 27, 1925–Feb. 27, 1926: Cases, 260. Reported as alastrim.
Do.	Dec. 27–Jan. 30	48		Reported as alastrim.
<b>Japan:</b>				
Nagasaki	Feb. 15–21	1		Do.
Taiwan	Nov. 11–Dec. 10	3		
Yokohama	Dec. 14–20	1		
Do.	Feb. 23	7		
<b>Java:</b>				
Batavia	Oct. 24–30	1		
Do.	Nov. 14–Dec. 25	7		
Buitenzorg	Nov. 29–Dec. 5	1		
Cheribon	Nov. 8–Dec. 12	2		
Kraksaan	Oct. 11–17	11		
Malang	Oct. 11–Jan. 2	3		
North Bantam	Oct. 4–17	4		
Pekalongan	Oct. 25–31	1		
Probolingo	Oct. 11–17	1		
Surabaya	Oct. 11–Dec. 26	633	104	
Do.	Dec. 27–Jan. 16	66	22	
South Bantam	Oct. 11–17	1		
Tegal	Oct. 4–10	9	1	
<b>Latvia</b>				
Latvia				December, 1925: Cases, 3.
<b>Malta</b>				
Malta	Nov. 1–Dec. 21	21	3	
Do.				Jan. 1–31, 1926: Cases, 15.

# CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued

Reports Received from December 26, 1925, to March 26, 1926—Continued

## SMALLPOX—Continued

Place	Date	Cases	Deaths	Remarks
Mexico.....				July-September, 1925: Deaths, 1,157.
Aguascalientes.....	Dec. 13-Jan. 2.....	4	3	
Do.....	Jan. 3-30.....		7	
Do.....	Feb. 14-Mar. 6.....		7	
Durango.....	Dec. 1-31.....		1	
Do.....	Jan. 1-31.....		2	
Guadalajara.....	Dec. 27-Mar. 8.....		12	
Mexico City.....	Nov. 28-Dec. 5.....	1		Including municipalities in Federal District.
Do.....	Jan. 3-Feb. 6.....	4		Do.
San Luis Potosi.....	Jan. 17-Feb. 27.....		33	
Tampico.....	Dec. 21-Jan. 2.....	1	1	
Do.....	Jan. 2-Feb. 28.....	6		
Torreón.....	Nov. 1-Dec. 31.....		51	
Do.....	Jan. 1-31.....		33	
Netherlands: The Hague.....	Jan. 30-Feb. 6.....	1	1	
Nigeria.....				August-October, 1925: Cases, 211; deaths, 6.
Palestine:				
Hebron.....	Jan. 26-Feb. 1.....	2		
Tiberias.....	Feb. 9-15.....		1	
Persia:				
Teheran.....	July 23-Oct. 22.....		465	
Peru:				
Arequipa.....	Oct. 1-Dec. 31.....		2	
Poland.....				Nov. 1-28, 1925: Cases, 9.
Portugal:				
Lisbon.....	Oct. 4-31.....	124		
Do.....	Nov. 16-Dec. 27.....		60	
Do.....	Nov. 14-Dec. 26.....	187		
Do.....	Dec. 27-Jan. 31.....	40	23	
Oporto.....	Nov. 22-Dec. 19.....	2	3	
Do.....	Dec. 27-Feb. 13.....	2	1	
Russia.....				May-June, 1925: Cases, 2,333.
Do.....	July-August.....	760		
Siam.....				July 12-Sept. 5, 1925: Cases, 21; deaths, 6.
Bangkok.....	Dec. 20-25.....	3	1	
Do.....	Dec. 26-Jan. 30.....	32	10	
Sierra Leone:				
Kono district.....	Dec. 16-31.....	5		
Spain:				
Madrid.....	Year 1925.....		18	
Malaga.....	Nov. 29-Dec. 5.....		2	
Do.....	Dec. 27-Jan. 2.....		1	
Valencia.....	Dec. 20-26.....	1		
Do.....	Dec. 27-Jan. 2.....	1		
Do.....	Jan. 10-Feb. 6.....	9		
Do.....	Feb. 14-27.....	5		
Straits Settlements:				
Singapore.....	Dec. 20-26.....	1		
Do.....	Jan. 10-16.....	2	1	
Switzerland.....				June 28-Nov. 21, 1925: Cases, 62.
Lucerne.....	Oct. 1-Nov. 30.....	8		
Zurich.....	Dec. 27-Jan. 2.....	1		
Trinidad (West Indies):				
Port of Spain.....	Jan. 22.....	1		Imported.
Tunisia:				
Tunis.....	Nov. 21-30.....	2		
Do.....	Dec. 11-31.....	10	1	
Do.....	Jan. 1-Feb. 20.....	6		
Union of South Africa:				
Cape Province.....	Jan. 17-23.....			Outbreaks
Orange Free State—				
Kuruman district.....	Jan. 10-16.....			Do.
Ladybrand district.....	Dec. 27-Jan. 2.....			Do.
Transvaal—				
Belfast district.....	do.....			Do.
Germiston district.....	Jan. 2-9.....			Do.
Pretoria district.....	Dec. 6-12.....			Outbreaks. In native compound.
On vessel.....	Feb. 21.....	2		Mexican steamer Montezuma, at Port of Ensenada, Mexico.

# CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued

Reports Received from December 26, 1925, to March 26, 1926—Continued

## TYPHUS FEVER

Place	Date	Cases	Deaths	Remarks
Algeria:				
Algiers.....	Nov. 1-Dec. 20.....	2	—	
Do.....	Feb. 1-10.....	8	—	
Argentina:				
Rosario.....	Oct. 13-Dec. 31.....	2	—	
Bulgaria.....	Sept. 1-Nov. 30.....	29	2	
Sofia.....	Dec. 25-31.....	1	—	
Do.....	Jan. 8-14.....	2	—	
Chile.....				Dec. 15-31, 1925: Cases, 46.
Achao.....	Dec. 15-31.....	1	—	
Bulnes.....	do.....	1	—	
Chilian.....	do.....	24	—	
Concepcion.....	do.....	6	—	
Linares.....	do.....	1	—	
Los Angeles.....	do.....	5	—	
Penco.....	do.....	2	—	
San Carlos.....	do.....	1	—	
Talca.....	do.....	1	—	
Valparaiso.....	do.....	4	—	
Do.....	Nov. 29-Jan. 2.....	—	2	
China:				
Antung.....	Nov. 29-Dec. 27.....	5	1	
Do.....	Jan. 4-10.....	1	—	
Hongkong.....	Dec. 27-Jan. 2.....	1	—	
Manchuria—				
Harbin.....	Dec. 17-Feb. 4.....	3	—	
Czechoslovakia.....	October-November.....	94	—	
Egypt:				
Alexandria.....	Jan. 8-14.....	1	—	
Cairo.....	Nov. 5-11.....	2	2	
Port Said.....	Nov. 19-25.....	1	—	
Finland.....				October, 1925: 1 case.
France.....	July-October.....	4	—	
Germany.....	Oct. 25-31.....	1	—	
Greece:				
Athens.....	Nov. 1-30.....	11	2	
Do.....	Jan. 1-31.....	19	4	
Saloniki.....	Dec. 29-Jan. 4.....	1	—	
Hungary.....				November, 1925: Cases, 3.
Ireland:				
Cork County—				
Cork.....	Dec. 26-Jan. 1.....	2	—	
Do.....	Jan. 2-8.....	5	—	
Dumanway.....	Nov. 14.....	1	—	
Galway County.....	Oct. 17.....	1	—	
Latvia.....	October-December.....	4	—	
Lithuania.....				September-October, 1925: Cases, 9; deaths, 1.
Mexico.....				July-September, 1925: Deaths, 90.
Aguascalientes.....	Dec. 14-19.....	1	—	
Durango.....	Dec. 1-31.....	—	1	
Do.....	Jan. 1-31.....	—	1	
Guadalajara.....	Dec. 8-28.....	—	2	
Do.....	Dec. 29-Jan. 4.....	—	1	
Mexico City.....	Nov. 22-Dec. 26.....	45	—	Including municipalities in Federal District.
Do.....	Dec. 27-Feb. 27.....	66	—	Do.
San Luis Potosi.....	Feb. 6-13.....	—	1	
Tampico.....	Dec. 21-Jan. 10.....	1	1	
Torreón.....	November, 1925.....	1	—	
Vera Cruz.....	Feb. 12.....	—	1	
Morocco.....	August-November.....	39	—	
Norway.....				November, 1925: Case, 1.
Palestine:				
Gaza.....	Dec. 18.....	1	—	
Jaffa.....	Dec. 1-7.....	1	—	
Nazareth.....	Nov. 3-9.....	1	—	
Safad.....	Nov. 24-30.....	1	—	
Tel-Aviv.....	do.....	1	—	
Peru:				
Arequipa.....	October-December.....	—	3	
Poland.....	Oct. 11-Nov. 14.....	142	16	
Do.....	Nov. 29-Dec. 19.....	144	12	
Rumania.....				July-August, 1925: Cases, 107; deaths, 15.

# **CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued**

**Reports Received from December 26, 1925, to March 26, 1926—Continued**

## **TYPHUS FEVER—Continued**

Place	Date	Cases	Deaths	Remarks
Russia.....				May-June, 1925: Cases, 10,680.
Do.....				July-September, 1925: Cases, 3,851.
Turkey:				
Constantinople.....	Jan. 24-30.....	3		October, 1925: Cases, 88; deaths, 7 (colored). Cases, European, 7. December, 1925: Cases, 78; deaths, 9. Colored: Cases, 73; deaths, 9.
Union of South Africa.....				Colored.
Cape Province.....	Oct. 1-31.....	63	5	
Do.....	Nov. 8-Dec. 31.....	47	8	
Do.....	Jan. 3-23.....			Outbreaks.
Grahamstown.....	Jan. 24-30.....	2		
Middleburg district.....	Dec. 6-12.....	1		European. On farm.
Natal.....	Oct. 1-Dec. 5.....	1		
Durban.....	Jan. 3-16.....	1		
Orange Free State.....	Nov. 20-Dec. 5.....	23	1	
Do.....	Dec. 1-31.....	8	1	
Bethulia district.....	Dec. 6-12.....			Outbreaks.
Bothaville district.....	do.....	1		Native. On farm.
Transvaal.....	Oct. 1-31.....	1	1	
Do.....	Dec. 1-31.....	18		
Bloemhof district.....	Dec. 27-Jan. 2.....			Outbreaks. On farm.

## **YELLOW FEVER**

Gold Coast.....	Sept. 1-Oct. 31.....	2	1	
Nigeria.....	August-October.....	3	2	
Senegal.....	November, 1925.....	3	2	





TREASURY DEPARTMENT

# PUBLIC HEALTH REPORTS

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PUBLIC HEALTH SERVICE

VOLUME 41 :: :: NUMBER 15

APRIL 9 - - - 1926

## SPECIAL ARTICLES

Qualifications and Duties of a Public Health Nurse

Reports of the Health Section of the League of Nations



WASHINGTON  
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1926

# UNITED STATES PUBLIC HEALTH SERVICE

HUGH S. CUMMING, *Surgeon General*

## DIVISION OF SANITARY REPORTS AND STATISTICS

Asst. Surg. Gen. B. J. LLOYD, *Chief of Division*

The PUBLIC HEALTH REPORTS are issued weekly by the United States Public Health Service through its Division of Sanitary Reports and Statistics, pursuant to acts of Congress approved February 15, 1893, and August 14, 1912.

They contain: (1) Current information of the prevalence and geographic distribution of preventable diseases in the United States in so far as data are obtainable, and of cholera, plague, smallpox, typhus fever, yellow fever, and other communicable diseases throughout the world. (2) Articles relating to the cause, prevention, or control of disease. (3) Other pertinent information regarding sanitation and the conservation of the public health.

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# PUBLIC HEALTH REPORTS

VOL. 41

APRIL 9, 1926

No. 15

## THE PUBLIC HEALTH NURSE

By J. G. TOWNSEND, Surgeon, United States Public Health Service

With the development of modern public health programs having definite objectives there has been correspondingly created a demand, more and more insistent, for the public health nurse, properly trained as such. The average young woman who desires to enter upon the life of real service which public health nursing offers will naturally seek for information as to—

- (1) What must I do to qualify?
- (2) What is the salary and permanency of office?
- (3) What will be my duties?

These are all pertinent questions and will be discussed in turn.

### 1. THE PREPARATION NECESSARY

For nurses who wish to enter the public health field, various types of courses are available. For example: At a prominent northern college a one-year course in "General public health nursing" is given for graduate nurses and students in schools of nursing who have completed a two-year course in a general hospital. The course includes some field work, besides basic teaching in the fundamentals of public health nursing, with emphasis upon family health through social, educational, and preventive work. A one-year course in industrial nursing may be taken, or a four-month course in field work.

It is also possible at this institution, for those who decide early on this specialty of the nursing profession, to matriculate for a five-year course. The first two years represent general college work, the third and fourth years are spent in a school for nurses, and the fifth year is spent in special preparation for public health nursing, special attention being paid to social, educational, and preventive work. This five-year course should be of special interest to women who wish to enter the nursing profession and who desire to combine training for public health nursing with courses leading to the degree of bachelor of science. It also shortens the usual nurses' course by one year.

During the summer months courses in public health nursing have been given at a few colleges, with the assistance of the United States Public Health Service. The instruction includes theoretical study

at the university and field work under competent field supervisors. Both instruction and field work include school nursing, infant welfare nursing, rural nursing, industrial nursing, and public health instruction in communicable diseases. This course is open only to graduate nurses.

Many colleges and State universities now provide for special courses for those wishing to enter the public health nursing field, with courses of from six months to two years.

It is to be hoped that, as public health becomes more and more popularized in the minds of the people, we shall see a better standardization of initial public health instruction, not only for nurses but for physicians as well; and instead of its being possible to make selections from courses ranging from two months to five years, courses will be chosen from curricula which extend over a standard length of time. This, of course, does not apply to special post-graduate courses for public health nurses in specialized branches.

As stated in the *American Journal of Public Health*, January, 1926, page 32:

It was the need of standards which caused the three national organizations, namely, the American Public Health Association, the State and Provincial Health Authorities of North America, and the National Organization for Public Health Nursing, to appoint a joint committee to consider the minimum qualifications for positions of directors and supervisors of public health and, in addition, to consider the higher standards which we hope to attain in 1930.

In summary, I quote from a statement by the Committee on Education of the National Organization for Public Health Nursing:

The training a nurse gets in the schools for nurses teaches her to care for the individual during his sickness. It usually does not give any instruction or experience in the treatment of family and community problems, which constitute a large part of the responsibility of the public health nurse. Neither does it give instruction in carrying out nursing measures in homes where there is little or no equipment available.

For public health nursing a nurse needs to know a great deal about preventive medicine, sanitation, housing, the social problems which lead to and result from sickness, and the methods used in the treatment of these problems, the social and medical legislation of her State, and the machinery and officials provided for its enforcement. Above all, the nurse must learn how to teach. If public health nurses are to make good the claim that is being made for them that they are the best agents for popular education in health matters, their teaching as well as their nursing, must have a sound technique.

For all of these things, and to learn successful methods of organizing public health work, the nurse needs a course beyond that given in the training school, and the better her academic background, the greater are her opportunities.

## 2. SALARY AND TERM OF OFFICE

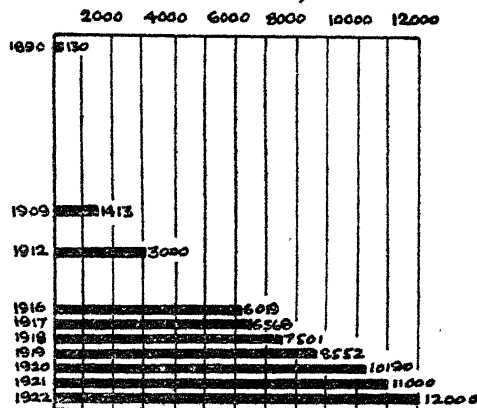
The salaries of public health nurses in the rural health organizations (county units) range from \$100 to \$185 per month, with a general average of \$140 per month.

In industrial plants the average salary is from \$100 to \$150 monthly, and the same may be said of city health nurses and school nurses.

In rural districts where travel is necessary, the automobile is furnished, together with oil, gas, and repairs. In some States provision is also made for reimbursement for meals when absent on official duty from the town where the central office is located.

Those who are successful in the field of public health nursing can almost invariably look forward to promotion in salary and often in position. Those who show administrative ability and the "will to do" are in demand by various welfare and health agencies—local, State, and national—for the recruits who answer the call of the cause now will be depended upon to lead the way in the future as public health nursing expands and grows.

### NUMBER OF PUBLIC HEALTH NURSES IN THE UNITED STATES, 1890-1922



The remuneration in the public health field compares very favorably with that of the private duty nurse. It is true that in private duty salaries of \$6 and \$7 per diem seem alluring, but this duty is not constant. There are days and sometimes weeks when there is no call. I have heard it expressed that 250 days in the year of active duty is the average. This, at \$6 per day, represents a salary of \$1,500 per year, with no provision for sickness. The public health nurse in the service of the Federal, State, or local administration is nearly always assured of at least 30 days' leave each year, and her salary is constant.

The nurse who is successful in her public health endeavors need have no fear as to permanency of position. The demand now far exceeds the supply. If the unforeseen does happen and lack of funds (never lack of need), or failure of appropriations terminates her work in one field, there are many other vineyards beckoning for her labors.

The accompanying chart shows roughly the growth of public health nursing since 1890; and it is safe to assert that the vast majority of the 12,000 nurses estimated in the United States in 1922 did not have the advantages of public health training which are offered to-day, nor are these 12,000 nurses sufficient in number.

In the report of the committee on municipal health department practice of the American Public Health Association<sup>1</sup> the statement is made that "public health nursing service, even in our large cities, is still notably inadequate in amount, the average ratio of 16.5 nurses per 100,000 population being about one-third of an ideal figure."

In the *Public Health Nurse* of January, 1926, it is reported that "out of a total of 3,045 counties in the United States, 1,799 counties, or 59 per cent of the total number, were without a local public health nursing service; 867 counties, or 28.5 per cent, had one or more local nursing services that were available to the entire county; and 379 counties, or 12.4 per cent, had local nursing services available for part of the county."

For the country at large the proportion is only about 12 per 100,000.

We read also in the report of the committee on municipal health department practice (p. 157) that "it has been estimated by Prof. A. W. Freeman that in the future almost one-half of the total appropriation of a properly equipped health department will be spent for various forms of public health nursing." This is most significant. With so much yet to do and with a popular demand to have it done, the future of public health nursing in all its branches is bright indeed.

### 3. DUTIES AND MODES OF PROCEDURE

Public health nursing has become so broad in its scope and is interwoven with so many activities that it is possible in an article such as this to consider only the work in the abstract. To put it broadly, the public health nurse has to do with the conservation of human life from before birth to the grave.

In modern full-time health organizations, the public health nurse is found engaged in prenatal care and advice to expectant mothers. Contact with expectant mothers is made by the nurse during routine visits to homes, or use is made of the "Motherhood correspondence course" by the central health office. This course consists of a series of letters, prepared by the section of child hygiene of the United States Public Health Service, though subject to modification by local health departments.

As originally planned, there were nine letters drafted, to be sent each month during pregnancy. These letters discussed, at the time of their importance, such items as the following: Morning

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<sup>1</sup>Public Health Bulletin No. 136, U. S. Public Health Service, July, 1923, p. 160.

sickness, diet, importance of urinalysis, proper clothing, dangers of overwork, and, in general, how the mother should care for herself during this important time in her life. A birth certificate is inclosed with the last letter.

Information as to the names and addresses of expectant mothers is obtained through different sources. Thus, in one State, in a report covering three months of the year, the total number of expectant mothers registered was 1,352. Information regarding these was obtained as follows:

Referred by physicians.....	418
Referred by public health nurses.....	534
Referred by welfare workers.....	89
Through publicity work.....	225
Through the division of vital statistics.....	86

It has been reported that in Boston prenatal nursing of the Instructive Visiting Nurse Association reduced the maternal death rate for the year 1920 from 7 in every 1,000 births to 2 in every 1,000 births.

In Cleveland, prenatal nursing is reported to have reduced the maternal death rate from 4 per 1,000 births to 1.4 per 1,000 births.<sup>2</sup>

What is being done in these two cities is being done elsewhere to help increase the human and financial dividends from the services of the public health nurse.

The real struggle for existence occurs during the preschool age (under 6 years). During this time, baby and child welfare clinics are in operation (or should be) for weighing, measuring, and examining the children brought by the parents. The health officer, or an assistant with special training in pediatrics, conducts these clinics about once a week. Here again the public health nurse is found, weighing babies, keeping charts and records, and, in general, helping materially in the successful operation of the clinic.

We next find the public health nurse in the schools busy in the organization of "little mothers' clubs." These organizations have for their purpose the teaching of little girls from 8 to 14 years something of the rudiments of infant care, so that when the time comes for them to assume the responsibilities of motherhood, they may profit from an earlier knowledge—a knowledge which, in time, will pay as high (and higher) dividends to the community as a whole, as the results obtained from the routine teaching of the Three R's.

The following is an example of the program of one of these meetings:

1. Calling of meeting to order by the president.
2. Calling of roll by secretary.
3. General discussion on topics of previous lesson.

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<sup>2</sup>Nursing and Nursing Education in the United States. The MacMillan Co., 1923, p. 49.

4. Talk by nurse on subject of lesson.
5. Demonstration by nurse of methods used in subject matter covered by lesson.
6. Motion to adjourn.

The nurse's talks at these meetings cover such objects as—

1. Hygiene of the home.
2. Fresh air.
3. Lighting and heating.
4. The baby's bed.
5. Sleep.
6. Weighing the baby.
7. Bathing the baby.
8. Clothing.
9. Breast feeding.
10. Care of bottles and nipples.
11. Preparation of formula.
12. Care of milk in the home.
13. Proper food for the bottle-fed baby.
14. The baby's food during the second year.
15. Bad habits.

Generally, these talks are prepared in the central office and supplied to the field nurse, thus insuring a better standardization of instruction. This feature of the public health nurse's duty is popular with the children and always demands expansion.

The schoolroom also finds the nurse assisting the health officer in school inspection. This consists in weighing and measuring children, routine examination for physical defects, and advising the parents (through the teacher) when defects are found, such as diseased tonsils and adenoids, underweight, poor vision, decayed teeth, etc. The nurse is also on the lookout for suspicious beginnings of the infectious diseases—the warning coryzas of measles and scarlet fever, the sore throat of diphtheria, and the various eruptions which may later kindle the epidemic fires. She spends busy days in the schoolroom assisting the health officer in vaccinations against smallpox and inoculations against typhoid fever and diphtheria (with the parents' permission), and in talking prevention as a means to a better citizenship.

The organization of the "Modern health crusade" as a means to combat tuberculosis, by inculcating health habits in plastic minds, is undertaken by the nurse, and the work is carried on by her when the crusade is launched.

In goitrous districts the nurse supervises the distribution of iodine in the form of chocolate wafers, among the school children.

So we find the public health nurse the lieutenant of the health officer, aiding him in promulgating health programs in the school rooms, thus beginning at the very foundation of citizenship.



From time to time reports are received by the health officer advising of the occurrence of a communicable disease. Personal contact is made with the family as soon as possible by a visit from the nurse, and advice is given as to personal prophylaxis and the prevention of spread. These duties are varied, embracing the prevention of tuberculosis, the filth-borne diseases, the eruptive diseases, venereal diseases (through health clinics), diphtheria, etc.

The duties enumerated above deal mainly with health departments. In connection with insurance companies, industrial plants, local tuberculosis associations, the Red Cross, and various agencies, local, State, and national, the work of the public health nurse is also definitely associated with the stupendous problem of disease prevention.

In the industrial field, more and more importance is being attached to the work of the field or public health nurse. In brief, her duties are individual instruction to employees in "safety first" and in personal hygiene and health hazards, group talks on the various subjects of prevention, home visits to determine cause of absence from work, baby welfare, ventilation, general sanitation, and proper feeding. Liberal use is made of posters, leaflets and pamphlets are distributed and, if there is a factory paper published, the nurse can tell her story through that medium.

At some places factory "cafeterias" have been established, through the nurse's influence, with a "milk service" to the undernourished, at cost, at 10 a. m. and 3 p. m.

In an article regarding the field of work of the industrial nurse,<sup>3</sup> written by the manager of a western plant, are mentioned school examinations and steps for correction of physical defects; distribution of free milk; the "Modern health crusade"; organization of the "Little mothers clubs"; and home visits. The author concludes by saying:

The industrial nurse has become an integral part of our plant organization, and her services have proved invaluable in keeping the general health of the men up to the standard that promotes greater efficiency. \* \* \* The work which an industrial nurse can do in a community is unlimited. Innumerable problems, great and small, constantly bob up and claim her attention. From the care of an infant to the task of assisting in the plans for a funeral, her services are in demand. Much of her work may be of a practical nature, but it is generally understood that her services are to be almost entirely instructive. I might recite many details other than those I have heretofore mentioned in which the industrial nurse would prove of great value, but I have simply related a few of the duties that are being assumed by our own nurse. The good that a nurse can do in a community is limited only by her own capabilities. It is certain that there is a vast amount of work that can be accomplished in the average industrial community if the proper steps are taken in the beginning,

<sup>3</sup>What an Industrial Nurse Can Do for a Community. *Public Health Nurse*, vol. 13, 1921, p. 201.

and my opinion is that the first vital step should be the selection and appointment of a qualified visiting nurse.

The use of the nurse by one of the large insurance companies for home visits and public-health advice has proved to pay ample dividends, not only in preventing disabling illnesses and deaths, but also in the saving of death claims. Thus, in 1920, the amount spent by one company on visiting nursing was \$1,412,596. During that year 23,910 fewer deaths were reported than had occurred in 1911. The estimated saving in death claims was \$4,731,180. Between 1911 and 1920, among this group of policyholders, the typhoid-fever death rate was reduced 71 per cent and the tuberculosis death rate was reduced 39 per cent.

A high official of the company said:

After 11 years it may be said that the biggest public health nursing experiment in the world has been successful beyond all expectation. From the point of view of either economy or humanity it must continue.<sup>4</sup>

These remarkable results followed home visits and instruction in the home care of the sick, advice to expectant mothers, infant welfare work, and, in brief, those humanizing contacts that have been previously discussed in the daily routine of the public health nurse.

When thinking in terms of public health, the idea of disease prevention is paramount; yet there is another phase which has a most important bearing on the whole problem in preparing the way and making it easier to put into effect those procedures which are recommended. I refer to the "social service" activities of the public health nurse or her case contact work. In reality, that part of the work is so intimately interwoven with the whole program that it is not commonly discussed as a separate entity.

It should be emphasized that it is essential for the nurse who is entering the field of public health to have the social service preparation needed in order better to visualize what must be done to assist families in making the adjustments necessary in preventive medicine. In her home-to-home visits she finds conditions nonmedical in nature, but which must be remedied if her nursing plans are to be carried out. Dr. Richard C. Cabot in his book on "Social Work" says:

The visiting nurses or public health nurses employed by a board of health or by private agencies for the care of contagious diseases in the home and also for the nursing of the sick poor whatever their malady, have found it more and more difficult in late years to confine their work wholly to physical aid. They have been forced to take account of the patients' economic, mental, and moral difficulties, to extend their work beyond the field of nursing proper, and thus to approach very closely to the field of the social worker. It is my own belief that the frontier separating visiting nurse and medical social worker should be rubbed out as rapidly as possible, until the two groups are fused into one. The visiting nurse must study the economic and mental sides of the patients' needs,

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<sup>4</sup>Nursing and Nursing Education in the United States. The MacMillan Co., 1923, p. 52.



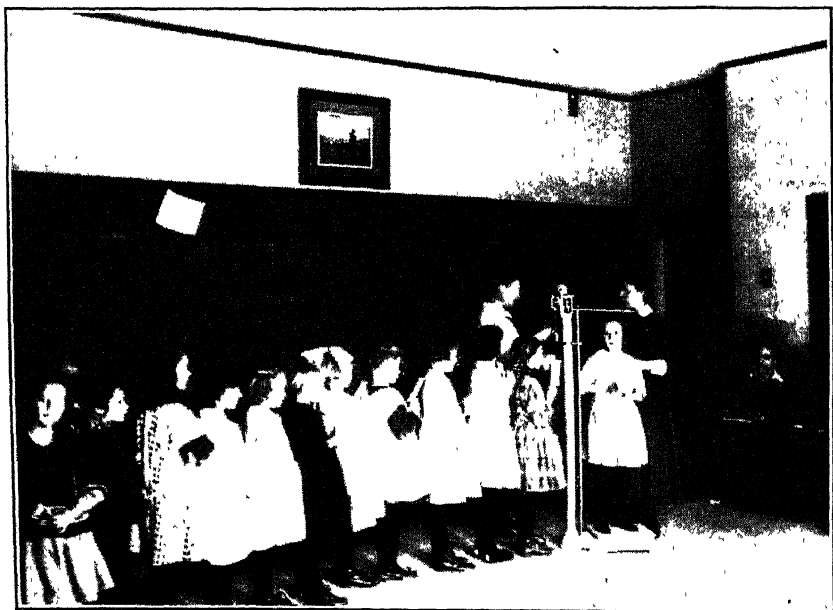
The public health nurse



Weighing and measuring babies—Child-welfare clinic



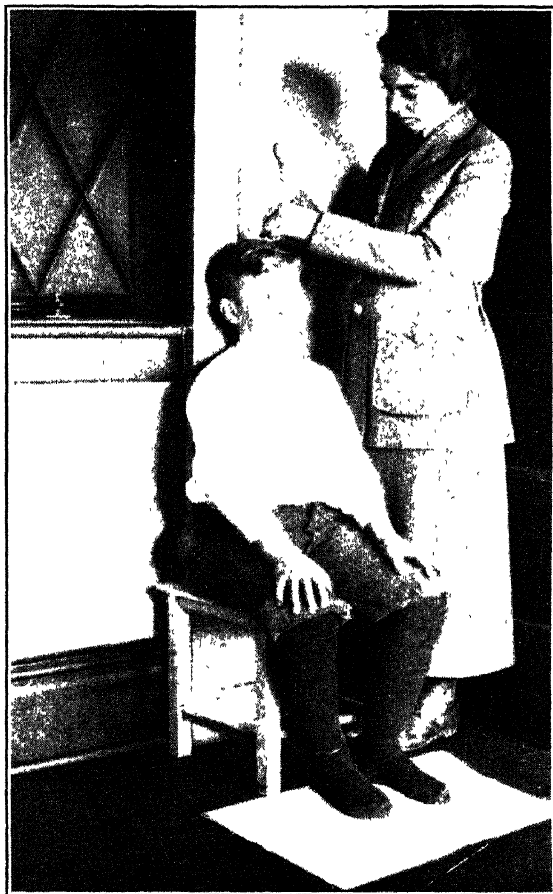
The school nurse



Weighing children in the schoolroom



Demonstrating toothbrush drill. (U. S. Public Health Service Mouth-Hygiene unit)



U. S. Public Health Service nurse measuring school children



Physical examination of school children by the public health nurse

and the social worker must learn something of medicine and nursing. Then the two groups will be fused into one, as indeed they are fast fusing at the present time.

So in the type of home visiting which now particularly concerns us, it is essential to make it clear from the outset that the social worker is a part of the medical organization. She is one of the means for diagnosis and treatment. All that she does from the moment when she first scrapes acquaintance with the patient is to be connected with the condition of the patient's health. She is not to pursue independent sociological or statistical inquiries. She is not to be the agent of any other nonmedical society. It is unfortunate even if her salary should be paid from any source other than the medical institution itself.

There are great advantages in this apparently formal and obvious point of connection. In the first place, the medical method of approach to close relations, to friendly relations, with a group of people is decidedly the easiest. \* \* \*

The idea that social work necessarily concerns the poor is wholly wrong. It concerns the sick; it concerns the tuberculous. Some of the sick and some of the tuberculous are poor; others are not. The State provides dispensaries for tuberculosis, and the people pay for them out of the taxes. Hence, all the people feel that they have the right to go there and that they are not in any sense accepting charity in going there. But social work is done in all these dispensaries. Thus the connection between medical and social studies is tending to upset the old idea that social work is necessarily concerned with poverty, and that economic studies are the main part of it.

In considering our great national health problems, it is becoming more fully realized that the county is the unit in which full-time health service must be encouraged. No full-time county health unit is complete nor can it properly function without the services of one or more nurses. The average county budget provides only for a full-time health officer, a full-time inspector, a nurse, and a clerk. Therefore, the nurse in this field is, of necessity, in intimate contact with the "family life" and is the only agent upon whom the health officer, in the main, depends in assisting the family to make such social adjustments as are necessary.

The report of a rural health nurse in West Virginia who is connected with a full-time county health unit, illustrates the nature of this work:

A philanthropic citizen of one of our communities reported a family to us as being in need of both financial and nursing aid. The home, like all homes in the mining sections, was very poorly built, furniture scant, but, unlike most of these homes, it was clean. Mrs. B., who looked like a child and was only 17, informed me that her husband was on a strike, that they had no food or fuel, and that she was expecting to have her baby in one month and had been unable to make any preparations for it. Prenatal instructions were given Mrs. B. and an interview with Mr. B. was arranged for the next day.

Meanwhile we talked with officials of a church organization, and they promised to send a box of food and a load of coal that day.

The next day we returned with a layette which was donated by a group of high-school girls who made it for experience in sewing. We talked with Mr. B. (a lad of about 21), who appeared to be not too ambitious, made him feel his responsibility and the necessity for getting work at once.

One week later we visited the home and learned that Mr. B. had secured a position. Two months later Mrs. B. very proudly took us to an improvised bed made

from a clothes basket and showed us her baby boy. She was following our instructions regarding baby care and said Mr. B. was working every day and they were getting along very well.

The United States Veterans' Bureau, in its work of rehabilitation of the ex-service beneficiary, recognizes the value of this nursing contact case work. The general orders of the bureau provide that—

1. It will be the function of the follow-up nurses of the United States Veterans' Bureau to visit bureau beneficiaries who are not receiving treatment in hospitals and who are actually in need of follow-up nursing care. Such beneficiaries, particularly, will include those who are disabled from tuberculosis, diabetes, nephritis, or heart conditions. Beneficiaries with a neuropsychiatric disability who develop tuberculosis or other medical disability will, when in need of follow-up nursing care, be referred to the nursing section.

2. The duties of follow-up nurses will, in general, consist of the following:

(a) To assist the medical division of the regional office or suboffice in affording treatment and relief to patients selected for follow-up nursing.

(b) To secure complete reports of home investigations of tuberculosis beneficiaries whose discharge from hospital is contemplated, under the provisions of section 202 (3) of the World War veterans' act.

(1) To make supplementary investigations of the sanitary environment of such tuberculous beneficiaries after they have been discharged from hospitals, and to advise such beneficiaries and their families regarding the accepted principles of sanitation and prophylaxis.

(c) To contact, cooperate with, and, wherever possible, to secure the aid of, other nursing agencies in their respective areas, such as State, county, and city organizations, and the American Red Cross; and to utilize to the fullest possible extent the facilities available through these agencies for the adjustment of domestic and economic obstacles to the recovery of the health of Bureau beneficiaries.

This follow-up nursing program is public health work on a large scale and, in itself, is a forceful illustration of the value of special preparation for the public health nurse in social service. A few reports of some actual experiences in this work are of interest.

I. This beneficiary was referred to the bureau nurse by another claimant as being most deserving. He was an ex-service man and was in needy circumstances. A visit was made by the nurse to the home, where claimant stated he was suffering from ankylosis of the right shoulder joint, with discharging sinus.

The home, a little shack on the outskirts of the village, was very poorly ventilated and in an untidy condition. The claimant's family consisted of his wife and four small children. The wife, who was a frail woman, suffering from goiter, expected to become a mother very soon. The two older children appeared emaciated and anemic, and upon investigation it was found that the family were in destitute circumstances and that they were without funds with which to buy food at the time of my visit. The only provisions in the home were bread and flour and water which they made into a gravy and ate on the bread. The family had been living on this fare for two days prior to my visit.

The claimant's former means of support, his Government compensation, had been discontinued some months previously, because of his lack of cooperation. On interview, this claimant stated his failure to cooperate was due to his wife's physical condition and that he felt that he could not leave her with the care of the four children and no one to care for her at the time of her confinement.



A conference was held with the local Red Cross nurse and local county health nurse, with the result that one of the local charities arranged to have groceries delivered to relieve the emergency. The county health nurse looked after the mother and saw that proper clothing and dressings were supplied. The children were taken to the tuberculosis clinic and all given a thorough examination. The two older children were sent to a fresh air camp. The other two children were supplied with a daily supply of milk. The claimant's case was referred to the regional medical officer, where immediate action was taken, and the claimant was again requested to report for examination. Hospitalization for his physical condition was recommended and accepted. Claimant was given a rating of "temporary total."

My last visit showed much improvement with a much happier atmosphere in the life of the beneficiary and his family.

II. P. W., disability, nerve caught in appendectomy scar, possible post-operative adhesions, is another case we encountered. This beneficiary lives on a 40-acre general farm. Before reaching this man's home, we had to wade through about three-quarters of a mile of mud and water. The house is a two-room shack, very dirty and insanitary; chickens were in the house, roosting on the chairs. This beneficiary has a social history of divorce from his first wife and subsequent marriage with the first wife's sister. He has two children by the second wife, the younger about 3 months old. There are also two children by the first marriage, not living with the beneficiary. Late in November, this man had a lapse of memory and had wandered into the woods for four hours, when he was found by a neighbor, who took him in. Later, he had a shorter attack which came on in the home. He has never had a mental examination. He is irresponsible and does not seem to manage his work very well. He had some strawberry plants in the house which had been lying there a week and were not being taken care of. It would appear from this one interview that claimant is suffering from an inability to make readjustments socially. Whether or not his family affairs and his inability to make adjustments successfully will permanently interfere with his rehabilitation is a matter which can be determined only by repeated follow-ups. The accumulated observation of the nurse over a period of time is the only possible means of aiding this man to become rehabilitated.

During this short trip only a few of one particular group of service men for whom the bureau is responsible was investigated. That the field nurse is an essential part of the medical field service was shown repeatedly in a group of cases who, as a general thing, require such nursing service least. The field nurse should be in a position, because of her education as a public health nurse, to get into the confidences of the family, to aid and instruct them relative to nursing care of the sick. Sympathy and consideration for claimant's disability should always be shown by other members of the family. The need for this attitude toward the claimant must be made a part of the nurse's follow-up work.

III. Pulmonary tuberculosis, advanced, active. Claimant left hospital against medical advice. Found claimant living in very small poorly ventilated and poorly lighted apartment. Wife incipient case of tuberculosis, and 2-year-old child, very delicate. Had claimant rehospitalized and referred mother and child to board of health clinic for treatment.

IV. Pulmonary tuberculosis, active. Claimant applied for home treatment. Made survey of his home; found family of six living in three rooms; four children ranging in age from 4 months to 3 years. Oldest child cervical gland enlarged. Infant very delicate. After several visits, persuaded claimant to be hospitalized and, through the board of health, had oldest child given surgical attention and medical attention given to other members of family found needing it.

These are only miscellaneous instances of what is continually going on in family adjustments through the efforts of the public health nurse—work that embraces more than merely nursing or teaching prevention, for it breaks through the venter of suspicion and makes the family unit a cooperating agency in economic, moral, and social reforms which make public health possible.

Everyone in the community knows the public health nurse and the work which she represents, and if she possesses the necessary tact and diplomacy it is not difficult to assist the family to adjust their affairs to meet the local situation. It is not always done in one visit. It sometimes takes many tedious trips to effect hospitalization; to assist other members of the family to find employment while the head of the household is under treatment; to instruct individuals, primitive in the first rudiments of prevention, how to practice home care of the sick; to popularize good food, good water supplies, safe milk, and fresh air, especially the "night air."

There should be a better general knowledge among qualified lay women and nurses regarding this whole matter of public health nursing—the great need, the difficulty in finding those qualified, and the returns for this form of public health endeavor in better babies, better children, better men and women, and, with it all, a lower sickness rate and a longer life.

The life of the public health nurse is not an easy one—no life of service is—but it is one in which there is afforded a genuine satisfaction for one's daily work. The public health nursing field is relatively new, but each year finds more seed being sown and better harvests reaped. However, achievement of best results in this fruitful field is proportionate to the number who elect this specialty of the nursing profession.

(NOTE.—Literature and further information relative to the public health nurse and public health nursing may be obtained upon request from the Surgeon General, United States Public Health Service, Washington, D. C.)

## CURRENT WORLD PREVALENCE OF DISEASE

REVIEW OF THE MONTHLY EPIDEMIOLOGICAL REPORT ISSUED FEBRUARY 15, 1926,  
BY THE HEALTH SECTION OF THE LEAGUE OF NATIONS' SECRETARIAT<sup>1</sup>

English cities, Paris, and several other European cities, which showed a sudden rise in the general mortality about the middle of December, reported a decline in the number of deaths at the end of December and during January, according to the data made available in the February issue of the Monthly Epidemiological Report published by the health section of the League of Nations' Secretariat. In most European cities the seasonal increase in mortality had been slight up to the end of January, and there was no suggestion of any unusual prevalence of influenza.

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<sup>1</sup> From the Statistical Office, U. S. Public Health Service.

On the other hand, the mortality in United States cities rose during January, declined again for several weeks, and then turned abruptly upward in the middle of February and continued to increase for several weeks. The mortality rate for 68 large cities reached the high point of 18.4 per 1,000 in the week ended March 20, a rate similar to that which occurred in February, 1923, at the peak of the influenza epidemic of that year. There is every indication that the present increase in mortality, at least in most localities, has been associated with a marked increase in cases of influenza and grippe and of pneumonia, which have affected practically every section of the country; but the records in the present issue of the Epidemiological Report are not sufficiently recent to indicate whether or not a similar phenomenon has occurred in other countries.

*Plague.*—No case of plague was reported in Egypt from December 9 to the middle of February. One case occurred at Beirut and two cases in Greece in January; otherwise the Mediterranean ports were free from plague during January. Plague was reported in south-eastern Russia as follows: 49 deaths in the Ural-Bukeiev Government from October 14 to December 21, and 5 cases with 4 deaths in the Stalingrad Government from November 20 to January 21. Only 6 cases were reported in the corresponding period of the preceding year.

The plague situation in India seemed fairly favorable down to the middle of December. The total number of deaths in the four weeks ended December 19 was approximately one-half the number reported in the corresponding period of the previous year. The United Provinces showed the most marked increase over the preceding four weeks, but the number of deaths was fewer than in the preceding year. Deaths in each of the Provinces are shown in the table below.

*Deaths from plague in the Provinces of India*

Province	1925		1924	Province	1925		1924
	Oct. 25- Nov. 21	Nov. 22- Dec. 19	Nov. 23- Dec. 20		Oct. 25- Nov. 21	Nov. 22- Dec. 19	Nov. 23- Dec. 20
North-West Frontier.....	0	0	186	Madras Presidency.....	81	112	500
Punjab.....	128	467	1,704	Hyderabad State.....	474	558	2,243
Delhi.....	0	0	50	Mysore.....	393	388	89
United Provinces.....	176	971	1,425	Bombay Presidency.....	1,184	988	701
Bihar and Orissa.....	11	146	204	Burma.....	189	332	105
Bengal Presidency.....	0	1	0	Other Indian States.....	153	209	490
Assam.....	0	0	9				
Central Provinces.....	182	215	747	Total.....	2,971	4,387	8,257

Plague incidence in Madagascar, seems to have reached its maximum in December, which is earlier than usual. In January there were 334 cases and 302 deaths, compared with 400 cases and 373 deaths in December. There has been a steady increase in plague in recent years in Madagascar, as shown by the following annual

totals: 125 cases in 1922; 698 in 1923; 1,661 in 1924; and 1,742 in 1925.

*Cholera.*—The ports in the Far East which reported cases of cholera during January and the first two weeks of February included Calcutta, Madras, Negapatam, Rangoon, Manila, and Bangkok.

"The cholera epidemic in Siam reached its maximum at the end of November, but the number of cases was still very high in December and January," says the Report. Nearly all Provinces have been infected.

*Cholera cases and deaths in Siam, October 18, 1925, to January 9, 1926*

Two weeks ended—	Cases	Deaths	Two weeks ended—	Cases	Deaths
Oct. 31.....	26	16	Dec. 12.....	871	536
Nov. 14.....	192	118	Dec. 26.....	749	517
Nov. 28.....	947	614	Jan. 9.....	482	323

The number of deaths from cholera in India was nearly 50 per cent higher in the four weeks ended December 19 than in the preceding four weeks. Nearly all the increase occurred in Madras Presidency, the southern districts of which were very heavily infected. Cholera incidence in Bengal and the Ganges valley was similar to that in the preceding year and had shown little change in the latest reports.

*Deaths from cholera in the Provinces of India*

Province	1925		1924	Province	1925		1924
	Oct. 25- Nov. 21	Nov. 23- Dec. 19	Nov. 23- Dec. 20		Oct. 25- Nov. 21	Nov. 23- Dec. 19	Nov. 23- Dec. 20
North-West Frontier.....	0	0	0	Central Provinces.....	0	0	25
Kashmir.....	0	0	61	Madras Presidency.....	1,407	3,166	2,794
Punjab.....	9	0	1	Bombay Presidency.....	0	0	116
Delhi.....	8	0	0	Burma.....	13	56	334
United Provinces.....	490	694	21	Other Indian States.....	0	0	55
Bihar and Orissa.....	565	245	502				
Bengal Presidency.....	1,698	1,666	1,973	Total.....	4,374	4,083	6,607
Assam.....	184	1,266	815				

<sup>1</sup> Three weeks only.

There were 336 cases of cholera reported in the Philippine Islands in the four weeks ended January 2, 1926, most of them from the Provinces of Bulacan, Rizal, Romblon, and Mindoro.

Only a few sporadic cases of cholera occurred in Japan during December.

*Yellow fever.*—The Gold Coast Colony reported one fatal case of yellow fever in November at Accra, and another in December.

*Typhus and relapsing fever.*—Typhus fever incidence continued low in practically the whole of Europe, but a slight recrudescence was observed in Poland and Russia late in the year 1925. "The type of the disease found in central and southeastern Europe is unusually

mild," states the report. " \* \* \* during the last quarter of 1925 there was, in each instance, only one death in the 138 cases in Czecho-slovakia, the 25 cases in the Kingdom of the Serbs, Croats, and Slovenes, and the 35 cases in Greece. There were 2 deaths in 35 cases in Bulgaria. In Algeria, there was also only 1 death in 27 cases reported. On the other hand, the case mortality in Egypt is much higher, though the incidence in 1925 was rather lower than for some years."

In Japan, only 31 cases of typhus were reported during 1925. The disease was more prevalent in Korea; and 225 cases with 34 deaths were reported in 1925, compared with 540 cases and 94 deaths in the preceding year.

Mexico reported approximately 30 deaths from typhus per month from April to September, 1925. A few cases occurred in the late summer in the United States in those States along the southern border; the maximum was 40 cases in the month of August.

Relapsing fever is practically nonexistent in Europe west of Russia and in the Mediterranean countries and Africa. In the Ukraine, 174 cases were reported in November, showing an increase over the 91 cases in October.

The following comment is made in the Report on relapsing fever in India:

The official report for India states that relapsing fever is spreading in the Multan district of the Punjab. This disease is endemic in many parts of India, especially in the north. In the Punjab there were 28,830 cases and 7,568 deaths in 1923. It has also been of common occurrence during recent years in the North-West Frontier Province, Bombay Presidency and part of Madras Presidency.

*Smallpox.*—The incidence of smallpox in England continued to increase during January, but the affected area was still limited to the northern counties. The cases in each county are given in the following table:

*Smallpox cases reported in England, by fortnightly periods, December 13, 1925, to February 13, 1926*

County	Two weeks ended—				
	Dec. 19	Jan. 2	Jan. 16	Jan. 30	Feb. 13
Northumberland.....	10	16	32	104	100
Durham.....	205	205	283	357	360
Yorkshire:					
N. Riding.....	1	0	0	0	2
E. Riding.....	18	13	10	15	4
W. Riding.....	23	58	157	160	85
Nottingham.....	27	20	27	21	13
Derby.....	40	68	85	68	70
Lancaster.....	0	0	0	1	7
Elsewhere.....	0	1	2	1	2
Total.....	324	381	596	727	643

The Report states that "no case of smallpox was reported for the last quarter of 1925 in the Scandinavian countries, Germany, the Netherlands, Belgium, Czechoslovakia, and Austria. The disease is unusually quiescent in eastern and southeastern Europe."

The number of smallpox cases in Egypt rose from 80 in November to 187 in December. In Algeria, 412 cases were reported in January, compared with 440 in December; but in Tunisia, cases declined from 169 in December to 42 in January.

Smallpox is more prevalent in India than it has been since 1919 and 1920. The Report says:

For the whole of India there were 4,929 cases of smallpox and 1,151 deaths during the week ended January 9, as against 2,142 cases and 497 deaths during the corresponding week of 1925. Nearly half these cases were returned from the Provinces of Bihar and Orissa, southern Orissa being particularly severely infected; there were 959 cases and 242 deaths during the week in the district and town of Puri alone, while 926 cases with 202 deaths occurred in the neighboring districts of Cuttack, Balasore, and Sambalpur.

*Enteric fever.*—In nearly all European countries there was less enteric fever during the last quarter of 1925 than in the corresponding quarter of the preceding two years. The quarterly totals are given in the accompanying table.

*Cases of enteric fever reported in European countries during the last quarter of 1923, 1924, and 1925*

Country	Total in fourth quarter of—		
	1923	1924	1925
England and Wales.....	920	969	710
Sweden.....	178	420	186
Finland.....	529	935	335
Denmark.....	117	182	48
Netherlands.....	422	317	257
Belgium.....	433	251	274
France.....	2,050	1,673	1,852
Italy.....	10,481	9,573	8,894
Switzerland.....	105	100	81
Germany.....	4,350	3,870	2,330
Baltic Republics (Esthonia, Latvia, Lithuania).....	649	827	608
Poland.....	5,152	6,808	3,513
Czechoslovakia.....	1,994	2,214	2,008
Austria.....	788	438	718
Hungary.....	2,350	3,547	2,236
Kingdom of the Serbs, Croats, and Slovenes.....	1,365	3,519	1,494
Bulgaria.....	1,485	5,437	1,319

*Cerebrospinal meningitis.*—"No outbreak of any considerable dimension [of cerebrospinal meningitis] has been reported this winter up to the present," says the Report. The total incidence of the disease during 1925 was very similar to that in 1924, and the only serious outbreak in 1925 occurred in Nigeria in February and March.

*Scarlet fever.*—The incidence of scarlet fever in European countries was generally much lower in January than in October and November.

*Diphtheria.*—Diphtheria was less prevalent during December and January than in the corresponding months of preceding years in most European countries.

*Measles.*—In Poland and Hungary the maximum measles incidence was reported in November. The disease was epidemic during December and January in northern and western Europe, and it was not yet certain in some instances that the maximum had been reached.

*Trachoma.*—The prevalence of trachoma in 1925 for a number of countries is shown in the following table:

*Cases of trachoma reported during 1924 and 1925*

Country	Total, 1924	1925				
		1st quarter	2d quarter	3d quarter	4th quarter	Total, 1925
Germany .....	1,784	487	757	619	914	2,777
Austria .....	424	175	255	104	293	827
Danzig .....	54	9	11	17	11	48
Estonia .....	528	142	123	68	94	427
France .....	73	8	29	11	6	54
Poland .....	2,944	1,016	1,051	953	1,116	—
Russia .....	483,290	135,433	184,262	183,232	—	—
European Russia .....	349,230	98,522	140,042	125,931	20,387	—
Ukraine .....	49,592	17,993	17,039	15,874	—	—
Transcaucasia .....	20,758	4,474	11,326	15,608	—	—
Siberia .....	48,158	10,627	10,486	12,216	2,305	—
Kirghiz Republic .....	12,045	3,033	—	—	3,676	—
Turkestan .....	3,407	—	—	—	2,102	—
Waterways, railways, prisons .....	—	520	581	549	322	—
Switzerland .....	13	2	12	1	1	16
Czechoslovakia .....	2,782	651	1,001	760	823	3,235
Saar Territory .....	3	4	0	1	10	15
Tunis .....	123	24	1	0	0	25
United States (27 States) .....	1,897	282	214	331	189	1,018
Panama Canal Zone .....	4	0	0	0	0	—
New Zealand .....	20	10	5	4	19	—
Turkey .....	—	207	3	—	—	—

<sup>1</sup> Last two weeks missing.

<sup>2</sup> October only.

<sup>3</sup> July missing.

<sup>4</sup> July only.

<sup>5</sup> 24 States.

<sup>6</sup> December missing.

## A STUDY OF DAYLIGHT ILLUMINATION

The science of daylight lighting has not received the study given to artificial lighting. This is probably due to the erroneous belief that daylight is always ample and costs nothing.

The proper lighting by daylight alone, during all kinds of weather and during all seasons, of rooms the size of schoolrooms is not a simple matter. From time to time various rules have been promulgated for the proper construction of schoolrooms; but very little data are in print giving the results of lighting measurements, and the science has not progressed to the stage whereby the illumination can be predicted accurately for any given architectural construction.

Proper lighting of schools is an important problem in connection with the development of children. The percentage of children having defective vision increases with the school grades. The conservation of the vision of the school child is a matter fully as important as his mental development.

With a view to testing the architectural rules pertaining to daylighting, about 50,000 observations were made in a school building during a school year. A summary of these observations is given in Public Health Bulletin No. 159, "Studies in Natural Illumination in School Rooms: A report on the observations of daylight illumination of selected classrooms of different orientation during the period of an entire school year," by Senior Surg. Taliaferro Clark and Physicist Arthur F. Beal. In this bulletin there are also presented rules of architecture pertaining to daylighting and conclusions drawn from the observations as to the value of each rule.

## PUBLIC HEALTH SERVICE PUBLICATIONS

### A List of Publications Issued During the Period November, 1925-March, 1926

Below is given a list of publications of the United States Public Health Service issued during the period November, 1925-March, 1926, inclusive.

The most important articles that appear each week in the **PUBLIC HEALTH REPORTS** are reprinted in pamphlet form, making possible a wider and more economical distribution of articles that are of interest to public health workers and the general public.

All of the publications listed here, except those marked with an asterisk (\*), are available for free distribution and, as long as the supply lasts, may be obtained by addressing the Surgeon General, United States Public Health Service, Washington, D. C. Those publications marked with an asterisk are not available for free distribution, but may be purchased from the Superintendent of Documents, Government Printing Office, Washington, D. C., at the prices noted. (No remittances should be sent to the Public Health Service.)

### Reprints From the Public Health Reports

- 1049. A Demonstration at Tarboro, N. C., of a System for Sanitary Control of Milk Supplies of Towns and Small Cities, with special reference to operation of a municipal pasteurization plant. By K. E. Miller. November 6, 1925. 12 pages.
- \*1050. Public Health Nursing. By J. G. Townsend. November 6, 1925. 8 pages. 5 cents.
- 1051. Reinoculation as a Criterion of Cure of Experimental Syphilis, with Reference to Arsphenamine, Neoarsphenamine, and Sulpharsphenamine. By Carl Voegtlin and Helen A. Dyer. November 13, 1925. 9 pages.



1052. Water Hyacinth and the Breeding of Anopheles. By M. A. Barber and T. B. Hayne. November 20, 1925. 6 pages.
1053. Heredity and Culture as Factors in Body Build. By C. B. Davenport and Louise A. Nelson. November 27, 1925. 5 pages.
1054. Results of Schick Tests in California. By Frank L. Kelly, Ida May Stevens, and Margaret Beattie. December 4, 1925. 14 pages.
1055. Public Health Service Publications. A list of publications issued during the period April–October, 1925. December 4, 1925. 4 pages.
1056. The Notifiable Diseases. Prevalence in States, 1924. December 18, 1925. 92 pages.
1057. The Tenth Revision of the United States Pharmacopoeia. By George B. Roth. December 25, 1925. 10 pages.
1058. Cancer Mortality in the Ten Original Registration States. Trend for the period 1900–1920. By J. W. Schereschewsky. January 1, 1926. 12 pages.
1059. Smallpox Vaccination as Carried out at Lehigh University. By Stanley Thomas. January 8, 1926. 8 pages.
1060. Sickness Among Industrial Employees. Incidence and duration of disabilities from important causes lasting longer than one week among 133,000 persons in industry in 1924, and a summary of the experience for 1920–1924. January 22, 1926. 19 pages.
1061. Some Nutrition Experiments with Brewer's Yeast, with especial reference to its value in supplementing certain deficiencies in experimental rations. By Maurice I. Smith, and E. G. Hendrick. February 5, 1926. 7 pages.
1062. A further Study of Butter, Fresh Beef, and Yeast as Pellagra Preventives, with Consideration of the Relation of Factor P-P of Pellagra (and Black Tongue of Dogs) to Vitamin B. By Joseph Goldberger, G. A. Wheeler, and R. D. Lillie. February 19, 1926. 22 pages.
1063. Stream Pollution. I. A Review of the Work of the United States Public Health Service in Investigations of Stream Pollution. By W. H. Frost. January 15, 1926. II. The Rate of Deoxygenation of Polluted Waters. By Emery J. Theriault. February 5, 1926. III. The Rate of Atmospheric Reaeration of Sewage-Polluted Streams. By H. W. Streeter. February 12, 1926. IV. Quantative Studies of Bacterial Pollution and Natural Purification in the Ohio and Illinois Rivers. By J. K. Hoskins. February 19, 1926. 51 pages.
1064. Four Cases of Tularaemia (Three Fatal) with Conjunctivitis. By H. L. Freese, G. C. Lake, and Edward Francis. February 26, 1926. 4 pages.
1065. A Community Health Program. By Hugh S. Cumming. February 26, 1926. 10 pages.
1066. Division of Venereal Diseases, July 1–December 31, 1925. March 5, 1925. 2 pages.
1067. Rocky Mountain Spotted Fever. A study of the relationship between the presence of rickettsia-like organisms in tick smears and the infectiveness of the same ticks. By R. R. Parker and R. R. Spencer. March 12, 1926. 9 pages.
1068. The Second International Conference on the Biological Standardization of Certain Remedies. March 19, 1926. 11 pages.
1069. The Relationship of Endemic Goiter to Certain Potential Foci of Infection. March 26, 1926. 15 pages.

### Supplements to the Public Health Reports

51. Public Health Laws and Regulations Adopted During 1924. Compiled by Jason Waterman, LL. B., and William Fowler, LL. B. 1925. 287 pages.
52. The Standardization of Digitalis. A comparative study of some of the methods of assaying digitalis, with a description of an improved modification of the one-hour frog method. By Maurice I. Smith and Wm. T. McClosky. 1925. 23 pages.
53. Report of Committee on Sanitary Control of the Shellfish Industry in the United States. November 6, 1925. 17 pages.

### Public Health Bulletins

153. A Study of the Top Minnow *Gambusia Holbrooki* in its Relation to Mosquito Control. By Samuel F. Hildebrand. May, 1925. 136 pages.
155. The Course of Cancer Mortality in the Ten Original Registration States for the 21-Year Period, 1900-1920. By J. W. Schereschewsky. June, 1925. 118 pages.
156. Transactions of the Fifth Conference of Malaria Field Workers. Held at New Orleans, Louisiana, November 25 and 26, 1924. August, 1925. 142 pages.
161. Transactions of the Twenty-Third Annual Conference of State and Territorial Health Officers with the United States Public Health Service, held at Washington, D. C., June 1 and 2, 1925.

### Hygienic Laboratory Bulletins

142. Key-Catalogue of the Worms Reported for Man. By C. W. Stiles and Albert Hassall. January, 1926. 196 pages.
143. Studies on *Brucella (Alkaligenes) Melitensis*. By Alice C. Evans. August, 1925. 67 pages.

### Venereal Disease Publications

- Venereal Disease Bulletin No. 73-B. Placard—Warning Against Venereal Diseases.
- Venereal Disease Bulletin No. 81. Venereal Disease Manual for Social and Corrective Agencies.
- Venereal Disease Information No. 5. Gonorrhea in Female Children.

### DEATHS DURING WEEK ENDED MARCH 27, 1926

*Summary of information received by telegraph from industrial insurance companies for week ended March 27, 1926, and corresponding week of 1925. (From the Weekly Health Index, March 31, 1926, issued by the Bureau of the Census, Department of Commerce)*

	Week ended Mar. 27, 1926	Corresponding week 1925
Policies in force.....	63, 798, 457	59, 188, 650
Number of death claims.....	16, 239	12, 662
Death claims per 1,000 policies in force, annual rate.....	13. 3	11. 2

Deaths from all causes in certain large cities of the United States during the week ended March 27, 1926, infant mortality, annual death rate, and comparison with corresponding week of 1925. (From the Weekly Health Index, March 31, 1926, issued by the Bureau of the Census, Department of Commerce)

City	Week ended Mar. 27, 1926		Annual death rate per 1,000 corresponding week 1925	Deaths under 1 year		Infant mortality rate, week ended Mar. 27, 1926 <sup>1</sup>
	Total deaths	Death rate <sup>2</sup>		Week ended Mar. 27, 1926	Corresponding week, 1925	
Total (69 cities).....	10,788	19.4	14.8	1,220	977	<sup>3</sup> 101
Akron.....	45	—	—	14	7	149
Albany.....	74	32.7	20.4	11	2	231
Atlanta.....	94	—	—	9	10	—
White.....	40	—	—	5	—	—
Colored.....	54	( <sup>4</sup> )	—	4	—	—
Baltimore.....	297	19.4	13.5	30	28	88
White.....	232	—	—	25	—	89
Colored.....	65	( <sup>4</sup> )	—	5	—	81
Birmingham.....	81	20.5	21.8	12	7	—
White.....	41	—	—	4	—	—
Colored.....	40	( <sup>4</sup> )	—	8	—	—
Boston.....	366	24.5	17.3	49	34	188
Bridgeport.....	38	—	—	6	5	102
Buffalo.....	245	23.7	15.4	24	19	100
Cambridge.....	43	18.7	13.1	8	5	133
Camden.....	46	18.6	15.0	5	8	85
Chicago.....	1,116	19.4	13.6	144	94	127
Cincinnati.....	196	25.0	21.3	15	14	83
Cleveland.....	328	18.3	12.0	49	20	127
Columbus.....	80	14.9	22.2	10	16	92
Dallas.....	49	13.2	17.3	6	13	—
White.....	34	—	—	3	—	—
Colored.....	15	( <sup>4</sup> )	—	3	—	—
Dayton.....	44	13.3	16.3	8	3	126
Denver.....	75	13.9	16.0	4	9	—
Des Moines.....	56	19.6	12.2	2	3	33
Detroit.....	474	19.8	11.2	88	56	142
Duluth.....	22	10.4	11.8	1	6	23
El Paso.....	34	16.9	16.4	9	6	—
Erie.....	37	—	—	10	4	190
Fall River.....	38	15.4	17.4	4	10	58
Flint.....	40	16.0	8.0	5	4	83
Fort Worth.....	35	12.0	8.6	3	4	—
White.....	30	—	—	2	—	—
Colored.....	5	( <sup>4</sup> )	—	1	—	—
Grand Rapids.....	55	18.7	13.2	10	6	145
Houston.....	47	14.9	13.6	2	7	—
White.....	30	—	—	1	—	—
Colored.....	17	( <sup>4</sup> )	—	1	—	—
Indianapolis.....	110	16.0	17.4	5	15	37
White.....	95	—	—	5	—	42
Colored.....	15	( <sup>4</sup> )	—	0	—	0
Jacksonville, Fla.....	49	24.4	19.4	1	5	21
White.....	26	—	—	0	—	0
Colored.....	23	( <sup>4</sup> )	—	1	—	37
Jersey City.....	114	18.9	15.2	11	15	78
Kansas City, Kans.....	44	19.8	23.4	5	9	87
White.....	31	—	—	2	—	42
Colored.....	13	( <sup>4</sup> )	—	3	—	394
Kansas City, Mo.....	121	17.2	18.4	12	16	—
Los Angeles.....	232	—	—	21	27	58
Louisville.....	136	23.5	18.0	15	9	129
White.....	107	—	—	11	—	110
Colored.....	29	( <sup>4</sup> )	—	4	—	251
Lowell.....	30	14.2	14.7	2	2	37
Lyon.....	44	22.3	9.1	3	2	75
Memphis.....	67	20.0	17.9	6	9	—
White.....	31	—	—	2	—	—
Colored.....	36	( <sup>4</sup> )	—	4	—	—
Milwaukee.....	130	13.5	11.0	23	18	107
Minneapolis.....	104	12.7	13.8	12	12	67

<sup>1</sup> Annual rate per 1,000 population.

<sup>2</sup> Deaths under 1 year per 1,000 births. Cities left blank are not in the registration area for births.

<sup>3</sup> Data for 64 cities.

<sup>4</sup> Deaths for week ended Friday, Mar. 26, 1926.

<sup>5</sup> In the cities for which deaths are shown by color, the colored population in 1920 constituted the following percentages of the total population: Atlanta 31, Baltimore 15, Birmingham 39, Dallas 15, Fort Worth 14, Houston 25, Kansas City, Kans., 14, Louisville 17, Memphis 38, Nashville 30, New Orleans 28, Norfolk 33, Richmond 38, and Washington, D. C., 25.

Deaths from all causes in certain large cities of the United States during the week ended March 27, 1926, infant mortality, annual death rate, and comparison with corresponding week of 1925. (From the Weekly Health Index, March 31, 1926, issued by the Bureau of the Census, Department of Commerce)—Continued

City	Week ended Mar. 27, 1926		Annual death rate per 1,000 corresponding week 1925	Deaths under 1 year		Infant mortality rate, week ended Mar. 27, 1926
	Total deaths	Death rate		Week ended Mar. 27, 1926	Corresponding week, 1925	
Nashville <sup>4</sup>	86	32.9	15.7	13	5	-----
White	55			8		-----
Colored	31	( <sup>5</sup> )		5		-----
New Bedford	52	22.7	12.6	10	6	174
New Haven	62	18.1	14.3	6	4	82
New Orleans	163	20.5	19.0	10	11	-----
White	89			3		-----
Colored	74	( <sup>5</sup> )		7		-----
New York	2,460	21.8	13.9	275	177	111
Bronx Borough	269	16.1	9.9	31	14	103
Brooklyn Borough	889	21.0	13.0	99	70	100
Manhattan Borough	1,034	27.7	18.9	121	75	134
Queens Borough	205	15.0	9.3	19	14	85
Richmond Borough	63	23.8	19.2	5	4	88
Newark, N. J.	147	16.9	13.5	13	12	62
Norfolk	47			3	1	56
White	17			2		59
Colored	30	( <sup>5</sup> )		1		50
Oakland	57	11.7	8.0	9	2	104
Oklahoma City	20			0	1	-----
Omaha	61	15.0	18.7	6	7	63
Paterson	64	23.6	19.1	3	7	52
Philadelphia	753	19.8	14.3	76	58	101
Pittsburgh	266	22.0	18.2	32	29	106
Portland, Oreg.	68	12.6	13.1	2	3	20
Providence	127	24.7	17.1	9	19	75
Richmond	71	19.9	12.9	9	6	113
White	39			7		137
Colored	32	( <sup>5</sup> )		2		70
Rochester	118	19.4	14.2	8	9	64
St. Louis	274	17.4	19.7	30	24	-----
St. Paul	64	13.6	13.6	4	4	36
Salt Lake City <sup>4</sup>	39	15.5	11.9	6	6	83
San Antonio	55	14.5	19.7	10	12	-----
San Diego	41	20.2	11.8	2	2	42
San Francisco	150	14.0	13.9	4	9	24
Schenectady	34	10.1	15.2	3	2	87
Seattle	77			3	6	28
Somerville	32	16.8	11.1	1	3	26
Spokane	34	16.3	13.0	3	1	70
Springfield, Mass.	54	19.8	18.0	6	3	87
Syracuse	97	27.8	15.8	9	5	114
Tacoma	22	11.0	11.0	3	4	70
Toledo	91	16.5	16.3	14	9	135
Trenton	55	21.7	16.2	4	8	67
Utica	49	25.1	22.1	4	6	88
Washington, D. C.	168	17.6	13.7	25	20	142
White	96			17		140
Colored	72	( <sup>5</sup> )		8		146
Waterbury	30			5	5	107
Wilmington, Del.	32	13.7	10.7	4	2	94
Worcester	84	23.0	13.1	4	5	46
Yonkers	33	15.1	16.1	5	3	112
Youngstown	35	11.4	12.1	4	6	51

See footnotes 4 and 5, on p. 671.

## DEATHS DURING WEEK ENDED MARCH 20, 1926

Summary of information received by telegraph from industrial insurance companies for week ended March 20, 1926, and corresponding week of 1925. (From the Weekly Health Index, March 23, 1926, issued by the Bureau of the Census, Department of Commerce)

	Week ended Mar. 20, 1926	Corresponding week, 1925
Policies in force	63,408,509	59,070,177
Number of death claims	15,275	12,743
Death claims per 1,000 policies in force, annual rate	12.6	11.2

Deaths from all causes in certain large cities of the United States during the week ended March 20, 1926, infant mortality, annual death rate, and comparison with corresponding week of 1925. (From the Weekly Health Index, March 23, 1926, issued by the Bureau of the Census, Department of Commerce)

City	Week ended Mar. 20, 1926		Annual death rate per 1,000 corresponding week, 1925	Deaths under 1 year		Infant mortality rate, week ended Mar. 20, 1925 *
	Total deaths	Death rate †		Week ended Mar. 20, 1926	Corresponding week, 1925	
Total (69 cities) .....	10,258	18.4	15.0	1,187	1,027	* 100
Akron.....	50			8	9	85
Albany †.....	56	24.8	24.3	4	1	84
Atlanta.....	94			13	6	
White.....	42			8		
Colored.....	52	( <sup>5</sup> )		5		
Baltimore †.....	276	18.1	20.2	28	33	82
White.....	202			19		68
Colored.....	74	( <sup>5</sup> )		9		146
Birmingham.....	76	19.3	20.8	14	7	
White.....	40			5		
Colored.....	36	( <sup>5</sup> )		9		
Boston.....	349	23.3	17.7	32	36	90
Bridgeport.....	43			10	1	171
Buffalo.....	109	16.4	16.2	23	28	96
Cambridge.....	50	21.8	9.6	4	1	66
Camden.....	53	21.5	16.2	11	4	186
Canton.....	33	16.2	10.3	3	4	67
Chicago †.....	1,036	18.0	14.3	149	107	132
Cincinnati.....	152	19.4	20.6	17	21	106
Cleveland.....	274	15.3	12.1	38	37	98
Columbus.....	86	16.0	17.1	7	9	64
Dallas.....	59	15.9	8.6	10	4	
White.....	47			8		
Colored.....	12	( <sup>5</sup> )		2		
Dayton.....	54	16.3	16.0	5	5	79
Denver.....	82	15.2	14.7	7	8	
Des Moines.....	51	17.8	11.9	4	3	67
Detroit.....	509	21.3	13.9	113	58	182
Duluth.....	29	9.4	11.8	5	1	117
El Paso.....	33	16.4	16.9	4	5	
Erie.....	41			7	3	133
Fall River †.....	43	17.4	15.0	7	11	102
Flint.....	34	13.6	6.8	9	4	149
Fort Worth.....	34	11.6	8.6	2	2	
White.....	32			2		
Colored.....	2	( <sup>5</sup> )		0		
Grand Rapids.....	48	16.3	11.9	7	5	101
Houston.....	57	18.0	14.5	5	1	
White.....	36			4		
Colored.....	21	( <sup>5</sup> )		1		
Indianapolis.....	134	19.5	16.6	9	10	66
White.....	111			8		68
Colored.....	23	( <sup>5</sup> )		1		55
Jacksonville, Fla.....	49	24.4	20.4	4	7	83
White.....	21			3		98
Colored.....	28	( <sup>5</sup> )		1		57
Jersey City.....	101	16.7	13.9	14	12	99
Kansas City, Kans.....	25	11.2	17.1	2	8	35
White.....	21			1		21
Colored.....	4	( <sup>5</sup> )		1		131
Kansas City, Mo.....	138	19.6	21.1	16	23	
Los Angeles.....	252			20	23	56
Louisville.....	133	23.0	18.0	18	13	155
White.....	94			13		130
Colored.....	39	( <sup>5</sup> )		5		314
Lowell.....	39	18.4	18.9	11	9	205
Lynn.....	38	19.2	12.6	7	2	176
Memphis.....	65	19.4	25.1	6	8	
White.....	28			2		
Colored.....	37	( <sup>5</sup> )		4		

\* Annual rate per 1,000 population.

† Deaths under 1 year per 1,000 births. Cities left blank are not in the registration area for births.

‡ Data for 64 cities.

§ Deaths for week ended Friday, Mar. 19, 1926.

|| In the cities for which deaths are shown by color, the colored population in 1920 constituted the following percentages of the total population: Atlanta 31, Baltimore 15, Birmingham 39, Dallas 15, Fort Worth 14, Houston 25, Kansas City, Kans., 14, Louisville 17, Memphis 38, Nashville 30, New Orleans 26, Norfolk 38, Richmond 32, and Washington, D. C., 25.

Deaths from all causes in certain large cities of the United States during the week ended March 20, 1926, infant mortality, annual death rate, and comparison with corresponding week of 1925. (From the Weekly Health Index, March 23, 1926, issued by the Bureau of the Census, Department of Commerce)—Continued

City	Week ended Mar. 27, 1925		Annual death rate per 1,000 corresponding week 1925	Deaths under 1 year		Infant mortality rate, week ended Mar. 20, 1926
	Total deaths	Death rate		Week ended Mar. 20, 1926	Corresponding week, 1925	
Milwaukee.....	119	12.4	13.8	26	30	120
Minneapolis.....	113	13.8	15.6	9	18	50
Nashville.....	71	27.2	11.5	9	1	-----
White.....	42			4		-----
Colored.....	29	( <sup>b</sup> )		5		-----
New Bedford.....	38	16.6	10.0	6	6	104
New Haven.....	68	19.8	16.6	3	5	41
New Orleans.....	161	20.3	18.4	8	15	-----
White.....	95			4		-----
Colored.....	66	( <sup>b</sup> )		4		-----
New York.....	2,331	20.7	14.0	257	202	164
Bronx Borough.....	261	15.6	10.7	31	15	103
Brooklyn Borough.....	845	20.0	12.5	108	57	106
Manhattan Borough.....	972	26.1	18.6	102	108	113
Queens Borough.....	192	14.9	10.4	14	29	63
Richmond Borough.....	63	23.8	14.7	5	2	88
Newark, N. J.....	169	17.5	16.2	19	16	91
Norfolk.....	48			9	6	167
White.....	18			3		80
Colored.....	30	( <sup>b</sup> )		6		298
Oakland.....	56	11.5	11.3	5	3	58
Oklahoma City.....	29			4	4	-----
Omaha.....	44	10.8	17.0	2	5	21
Paterson.....	64	23.6	11.4	4	7	70
Philadelphia.....	838	21.9	14.1	73	66	97
Pittsburgh.....	233	19.2	22.1	36	32	120
Portland, Oreg.....	69	12.7	12.9	6	5	61
Providence.....	78	15.2	11.9	7	10	58
Richmond.....	60	16.8	10.9	12	2	151
White.....	34			6		118
Colored.....	26	( <sup>b</sup> )		6		210
Rochester.....	143	23.5	13.2	8	9	64
St. Louis.....	253	16.1	13.6	14	13	-----
St. Paul.....	64	13.6	18.0	4	6	36
Salt Lake City.....	24	9.6	13.5	4	3	55
San Antonio.....	60	15.8	13.9	7	9	-----
San Diego.....	37	18.2	20.2	1	2	21
San Francisco.....	120	11.2	14.4	4	9	24
Schenectady.....	27	15.2	11.8	0	5	0
Seattle.....	70			6	4	56
Somerville.....	23	12.1	11.1	1	2	26
Spokane.....	43	20.6	12.4	1	2	23
Springfield, Mass.....	56	20.6	18.0	7	5	101
Syracuse.....	91	26.1	17.2	8	3	101
Tacoma.....	26	13.0	11.0	5	0	117
Toledo.....	76	13.8	13.4	9	9	87
Trenton.....	57	22.5	13.4	11	5	184
Washington, D. C.....	143	15.5	15.7	9	11	51
White.....	104			6		60
Colored.....	44	( <sup>b</sup> )		3		55
Waterbury.....	28			2	5	43
Wilmington, Del.....	39	16.7	14.1	5	3	117
Worcester.....	59	16.1	14.5	5	7	68
Yonkers.....	40	18.4	14.7	4	7	90
Youngstown.....	26	8.5	12.7	3	7	38

See footnotes 4 and 5, on p. 673.

# PREVALENCE OF DISEASE

*No health department, State or local, can effectively prevent or control disease without knowledge of when, where, and under what conditions cases are occurring*

## UNITED STATES

### CURRENT WEEKLY STATE REPORTS

These reports are preliminary and the figures are subject to change when later returns are received by the State health officers

#### Reports for Week Ended April 3, 1926

ALABAMA		ARKANSAS—continued	
	Cases		Cases
Cerebrospinal meningitis.....	2	Ophthalmia neonatorum.....	2
Chicken pox.....	27	Pellagra.....	1
Diphtheria.....	8	Scarlet fever.....	9
Influenza.....	721	Smallpox.....	10
Malaria.....	2	Trachoma.....	1
Measles.....	177	Tuberculosis.....	10
Mumps.....	87	Typhoid fever.....	2
Pellagra.....	15	Whooping cough.....	29
Pneumonia.....	149		
Scarlet fever.....	11	CALIFORNIA	
Smallpox.....	32	Cerebrospinal meningitis:	
Tuberculosis.....	17	Fresno.....	1
Typhoid fever.....	5	Sacramento.....	1
Typhus fever.....	1	San Francisco.....	1
Whooping cough.....	60	Chicken pox.....	273
		Diphtheria.....	114
ARIZONA		Influenza.....	28
Chicken pox.....	4	Lethargic encephalitis:	
Diphtheria.....	8	Fresno County.....	1
Influenza.....	10	San Francisco.....	1
Measles.....	2	Measles.....	109
Mumps.....	6	Mumps.....	385
Pneumonia.....	4	Pollomyelitis—Berkeley.....	1
Scarlet fever.....	12	Scarlet fever.....	141
Smallpox.....	2	Smallpox:	
Trachoma.....	14	Los Angeles.....	93
Tuberculosis.....	7	Oakland.....	19
Typhoid fever.....	1	Scattering.....	31
Whooping cough.....	3	Typhoid fever.....	6
		Whooping cough.....	49
ARKANSAS			
Chicken pox.....	32	COLORADO	
Diphtheria.....	2	Chicken pox.....	57
Hookworm disease.....	2	Diphtheria.....	29
Influenza.....	601	German measles.....	4
Malaria.....	60	Impetigo contagiosa.....	1
Measles.....	14	Influenza.....	7
Mumps.....	14	Measles.....	31

COLORADO—continued		GEORGIA—continued	
	Cases		Cases
Mumps.....	4	Pneumonia.....	112
Pneumonia.....	3	Scarlet fever.....	11
Scarlet fever.....	43	Septic sore throat.....	12
Smallpox.....	1	Smallpox.....	30
Tuberculosis.....	28	Tetanus.....	1
Typhoid fever.....	2	Tuberculosis.....	25
Vincent's angina.....	2	Typhoid fever.....	5
Whooping cough.....	145	Whooping cough.....	26
CONNECTICUT		IDAHO	
Cerebrospinal meningitis.....	3	Cerebrospinal meningitis:	
Chicken pox.....	30	Arco.....	1
Conjunctivitis (infectious).....	5	Burley.....	1
Diphtheria.....	14	Huston.....	1
German measles.....	12	Chicken pox.....	2
Influenza.....	133	Diphtheria.....	3
Lethargic encephalitis.....	1	Measles.....	14
Measles.....	502	Mumps.....	13
Mumps.....	6	Scarlet fever.....	12
Pneumonia (broncho).....	79	Smallpox:	
Pneumonia (lobar).....	118	Emmett.....	19
Scarlet fever.....	99	Scattering.....	10
Tetanus.....	1	Typhoid fever.....	1
Trichinosis.....	1	Whooping cough.....	12
Tuberculosis (all forms).....	33	ILLINOIS	
Typhoid fever.....	1	Cerebrospinal meningitis:	
Whooping cough.....	53	Cook County.....	1
DELAWARE		Morgan County.....	1
Chicken pox.....	4	Diphtheria.....	71
Influenza.....	9	Influenza.....	349
Measles.....	55	Lethargic encephalitis—Tazewell County.....	1
Pneumonia.....	12	Measles.....	850
Scarlet fever.....	15	Pneumonia.....	750
Tuberculosis.....	1	Polio myelitis:	
Typhoid fever.....	1	Cook County.....	1
Whooping cough.....	2	Macon County.....	1
FLORIDA		Scarlet fever.....	373
Chicken pox.....	68	Smallpox.....	17
Diphtheria.....	21	Tuberculosis.....	272
German measles.....	1	Typhoid fever.....	2
Influenza.....	45	Whooping cough.....	176
Malaria.....	2	INDIANA	
Measles.....	53	Cerebrospinal meningitis.....	3
Mumps.....	21	Chicken pox.....	46
Pneumonia.....	9	Diphtheria.....	25
Polio myelitis.....	1	Influenza.....	255
Scarlet fever.....	19	Measles.....	904
Smallpox.....	164	Mumps.....	6
Tuberculosis.....	7	Pneumonia.....	43
Typhoid fever.....	11	Polio myelitis.....	1
Whooping cough.....	17	Scarlet fever.....	171
GEORGIA		Smallpox.....	67
Cerebrospinal meningitis.....	1	Tuberculosis.....	55
Chicken pox.....	50	Typhoid fever.....	1
Diphtheria.....	8	Whooping cough.....	54
Hookworm disease.....	2	IOWA	
Influenza.....	488	Chicken pox.....	26
Malaria.....	15	Diphtheria.....	13
Measles.....	181	German measles.....	35
Mumps.....	110	Influenza.....	658
Paratyphoid fever.....	1	Measles.....	196
Pellagra.....	10	Mumps.....	62
		Pneumonia.....	35



## IOWA—continued

	Cases
Scarlet fever.....	44
Smallpox.....	52
Tuberculosis.....	1
Whooping cough.....	17

## KANSAS

Cerebrospinal meningitis—Montezuma.....	1
Chicken pox.....	57
Diphtheria.....	9
German measles.....	10
Influenza.....	33
Measles.....	467
Mumps.....	20
Pneumonia.....	72
Poliomyelitis—Mildred.....	1
Scarlet fever.....	64
Smallpox.....	7
Tuberculosis.....	32
Typhoid fever.....	1
Whooping cough.....	107

## LOUISIANA

Diphtheria.....	7
Influenza.....	84
Malaria.....	5
Pneumonia.....	39
Scarlet fever.....	8
Smallpox.....	19
Tuberculosis.....	30
Typhoid fever.....	6

## MAINE

Chicken pox.....	25
Diphtheria.....	4
German measles.....	41
Influenza.....	248
Measles.....	343
Mumps.....	55
Pneumonia.....	39
Scarlet fever.....	22
Septic sore throat.....	5
Tuberculosis.....	4
Typhoid fever.....	1
Vincent's angina.....	3
Whooping cough.....	28

MARYLAND<sup>1</sup>

Cerebrospinal meningitis.....	1
Chicken pox.....	90
Diphtheria.....	22
German measles.....	3
Influenza.....	149
Lethargic encephalitis.....	2
Measles.....	818
Mumps.....	178
Pneumonia (broncho).....	61
Pneumonia (lobar).....	78
Poliomyelitis.....	1
Scarlet fever.....	46
Septic sore throat.....	1
Tetanus.....	1
Tuberculosis.....	72
Typhoid fever.....	6
Whooping cough.....	65

## MASSACHUSETTS

	Cases
Cerebrospinal meningitis.....	7
Chicken pox.....	87
Conjunctivitis (suppurative).....	5
Diphtheria.....	52
German measles.....	235
Influenza.....	350
Lethargic encephalitis.....	1
Measles.....	940
Mumps.....	120
Ophthalmia neonatorum.....	49
Pneumonia (lobar).....	316
Poliomyelitis.....	2
Scarlet fever.....	250
Septic sore throat.....	3
Tuberculosis (pulmonary).....	73
Tuberculosis (other forms).....	56
Typhoid fever.....	2
Whooping cough.....	344

## MICHIGAN

Diphtheria.....	91
Measles.....	1,416
Pneumonia.....	379
Scarlet fever.....	402
Smallpox.....	6
Tuberculosis.....	306
Typhoid fever.....	5
Whooping cough.....	237

## MINNESOTA

Chicken pox.....	77
Diphtheria.....	28
Influenza.....	3
Lethargic encephalitis.....	1
Measles.....	330
Pneumonia.....	2
Scarlet fever.....	312
Smallpox.....	3
Tuberculosis.....	107
Typhoid fever.....	1
Whooping cough.....	47

## MISSISSIPPI

Diphtheria.....	11
Influenza.....	716
Scarlet fever.....	3
Smallpox.....	12
Typhoid fever.....	3

## MISSOURI

Cerebrospinal meningitis.....	2
Chicken pox.....	52
Diphtheria.....	69
Influenza.....	16
Measles.....	867
Mumps.....	24
Pneumonia.....	5
Rabies (in animals).....	4
Scarlet fever.....	311
Smallpox.....	14
Tuberculosis.....	38
Typhoid fever.....	4
Whooping cough.....	86

<sup>1</sup> Week ended Friday.

MONTANA		NEW YORK--continued	
	Cases		Cases
Cerebrospinal meningitis.....	1	Scarlet fever.....	238
Chicken pox.....	8	Septic sore throat.....	8
Diphtheria.....	1	Smallpox.....	2
German measles.....	20	Typhoid fever.....	12
Influenza.....	1	Vincent's angina.....	7
Measles.....	2	Whooping cough.....	361
Mumps.....	23		
Rocky Mountain spotted fever.....	1	NORTH CAROLINA	
Scarlet fever.....	61	Chicken pox.....	202
Smallpox.....	6	Diphtheria.....	26
Tick paralysis.....	1	German measles.....	384
Trachoma.....	1	Measles.....	327
Tuberculosis.....	2	Scarlet fever.....	25
Whooping cough.....	13	Septic sore throat.....	1
		Smallpox.....	42
NEBRASKA		Typhoid fever.....	4
Chicken pox.....	10	Whooping cough.....	174
Diphtheria.....	1		
Measles.....	23	OKLAHOMA	
Mumps.....	7	(Exclusive of Tulsa and Oklahoma City)	
Pneumonia.....	3	Chicken pox.....	29
Scarlet fever.....	73	Diphtheria.....	4
Smallpox.....	19	Influenza.....	1,451
Tuberculosis.....	1	Malaria.....	13
Typhoid fever.....	2	Measles.....	38
Whooping cough.....	13	Mumps.....	7
		Pellagra.....	10
NEW JERSEY		Pneumonia.....	237
Chicken pox.....	143	Polioomyelitis—Blaine County.....	2
Diphtheria.....	65	Scarlet fever.....	39
Influenza.....	92	Smallpox.....	17
Measles.....	2,230	Typhoid fever.....	3
Pneumonia.....	287	Whooping cough.....	76
Polioomyelitis.....	1		
Scarlet fever.....	176	OREGON	
Smallpox.....	1	Cerebrospinal meningitis.....	2
Typhoid fever.....	3	Chicken pox.....	20
Whooping cough.....	43	Diphtheria.....	22
		Influenza.....	61
NEW MEXICO		Lethargic encephalitis.....	1
Chicken pox.....	11	Measles.....	37
Conjunctivitis.....	3	Mumps.....	42
Diphtheria.....	7	Pneumonia.....	16
Influenza.....	1	Rocky Mountain spotted fever.....	2
Measles.....	7	Scarlet fever.....	33
Mumps.....	10	Smallpox:	
Pneumonia.....	10	Polk County.....	10
Scarlet fever.....	4	Scattering.....	14
Septic sore throat.....	1	Tuberculosis.....	21
Tuberculosis.....	13	Whooping cough.....	31
Typhoid fever.....	2		
Whooping cough.....	23	PENNSYLVANIA	
		Anthrax—Philadelphia.....	1
NEW YORK		Chicken pox.....	308
(Exclusive of New York City)		Diphtheria.....	151
Cerebrospinal meningitis.....	5	German measles.....	69
Chicken pox.....	171	Impetigo contagiosa.....	9
Diphtheria.....	93	Lethargic encephalitis:	
German measles.....	199	Erie.....	1
Influenza.....	2,214	Philadelphia.....	1
Lethargic encephalitis.....	5	Measles.....	2,805
Measles.....	1,606	Mumps.....	143
Mumps.....	155	Ophthalmia neonatorum—Pittsburgh.....	2
Pneumonia.....	849	Pneumonia.....	224
Polioomyelitis.....	2	Scabies.....	8

1 Deaths.

## PENNSYLVANIA—continued

	Cases
Scarlet fever.....	494
Smallpox.....	2
Tetanus—Pittsburgh.....	1
Tuberculosis.....	86
Typhoid fever.....	36
Whooping cough.....	365

## RHODE ISLAND

Chicken pox.....	2
Diphtheria.....	9
German measles.....	10
Influenza.....	48
Measles.....	171
Pneumonia.....	4
Scarlet fever.....	11
Tuberculosis.....	14
Whooping cough.....	8

## TENNESSEE

Chicken pox.....	46
Diphtheria.....	11
Influenza.....	595
Lethargic encephalitis—Lebanon.....	1
Malaria.....	1
Measles.....	275
Ophthalmia neonatorum.....	1
Pellagra.....	5
Pneumonia.....	103
Scarlet fever.....	40
Smallpox.....	
Memphis.....	8
Scattering.....	10
Tuberculosis.....	79
Typhoid fever.....	8
Whooping cough.....	14

## TEXAS

Chicken pox.....	100
Diphtheria.....	35
Dysentery.....	3
Influenza.....	532
Measles.....	17
Mumps.....	30
Pellagra.....	2
Pneumonia.....	32
Scarlet fever.....	44
Smallpox.....	56
Trachoma.....	1
Tuberculosis.....	21
Typhoid fever.....	1
Typhus fever.....	2
Whooping cough.....	53

## UTAH

Chicken pox.....	21
Diphtheria.....	10
Influenza.....	4
Measles.....	6
Mumps.....	51
Pneumonia.....	3
Scarlet fever.....	4
Smallpox.....	1
Whooping cough.....	82

## VERMONT

Chicken pox.....	17
Diphtheria.....	4
Measles.....	12
Mumps.....	16
Scarlet fever.....	10
Whooping cough.....	20

## WASHINGTON

	Cases
Cerebrospinal meningitis:	
Kittitas County.....	2
Seattle.....	2
Spokane.....	5
Chicken pox.....	39
Diphtheria.....	5
German measles.....	82
Influenza.....	5
Measles.....	37
Mumps.....	44
Scarlet fever.....	54
Smallpox.....	55
Tuberculosis.....	30
Typhoid fever.....	2
Vincent's angina.....	1
Whooping cough.....	51

## WEST VIRGINIA

Diphtheria.....	3
Influenza.....	115
Measles.....	421
Scarlet fever.....	25
Smallpox.....	2
Tuberculosis.....	10
Whooping cough.....	19

## WISCONSIN

Milwaukee:	
Chicken pox.....	72
Diphtheria.....	17
German measles.....	2
Influenza.....	13
Measles.....	112
Mumps.....	43
Pneumonia.....	45
Scarlet fever.....	31
Tuberculosis.....	27
Whooping cough.....	40
Scattering:	
Chicken pox.....	141
Diphtheria.....	16
German measles.....	45
Influenza.....	467
Lethargic encephalitis.....	2
Measles.....	670
Mumps.....	247
Pneumonia.....	38
Scarlet fever.....	152
Smallpox.....	1
Tuberculosis.....	17
Typhoid fever.....	2
Whooping cough.....	164

## WYOMING

Chicken pox.....	5
German measles.....	3
Measles.....	1
Mumps.....	3
Pneumonia (lobar).....	2
Rocky Mountain spotted fever:	
Hot Springs.....	1
Johnson.....	2
Natrona.....	2
Weston.....	1
Scarlet fever.....	25
Whooping cough.....	12

## SUMMARY OF MONTHLY REPORTS FROM STATES

The following summary of monthly State reports is published weekly and covers only those States from which reports are received during the current week:

State	Cerebro-spinal meningitis	Diphtheria	Influenza	Malaria	Measles	Pollagra	Polio-myelitis	Scarlet fever	Smallpox	Typhoid fever
<b>New Mexico:</b>										
July, 1925.....	0	30	0	2	1	2	0	6	0	25
August, 1925.....	0	22	3	2	3	0	2	8	0	52
September, 1925.....	0	8	0	0	2	1	3	6	0	77
October, 1925.....	0	18	0	0	2	5	2	41	0	89
November, 1925.....	0	21	5	6	1	1	3	74	2	77
December, 1925.....	0	8	3	1	2	1	1	42	2	21
January, 1926.....	1	16	10	1	7	0	2	67	3	7
<i>February, 1926</i>										
Alabama.....	4	83	3,582	40	180	53	1	82	148	51
Maine.....	0	7	45	0	248	0	2	124	0	9
Massachusetts.....	4	273	50	0	6,441	1	4	1,119	0	23
Mississippi.....	3	153	46,585	1,945	1,802	245	1	53	82	65
Montana.....	1	16	340	0	37	0	0	162	36	4
New Mexico.....	0	28	742	0	13	0	1	41	17	7
Oregon.....	16	89	1,126	0	210	0	1	168	185	14
South Carolina.....	0	183	11,490	276	36	0	0	32	83	62
Virginia.....	7	137	12,875	32	1,220	14	1	293	34	27
Washington.....	32	95	67	0	77	0	0	402	397	15

## SMALLPOX AT SEATTLE, WASH.

Senior Surgeon George M. Magruder, of the United States Public Health Service, reports smallpox cases and deaths in Seattle, Wash., as follows: Three months ended December 31, 1925, 28 cases, no death. January 1 to March 23, 1926, 92 cases, 8 deaths. In King County, including Seattle, from January 1 to March 23, 122 cases, 22 deaths. Smallpox cases were reported in the State in somewhat greater numbers than last year, but the fatal type of the disease appears to be confined to Seattle and King County. Active measures are being taken to control the disease.

## PLAGUE ERADICATIVE MEASURES IN LOS ANGELES, CALIF.

The following items were taken from the reports of plague eradication measures from Los Angeles, Calif.:

Week ended March 20, 1926:

Number of rats trapped.....	2,140
Number of rats found to be plague infected.....	0
Number of squirrels examined.....	789
Number of squirrels found to be plague infected.....	0
Number of mice trapped.....	2,124
Number of mice found to be plague infected.....	0

Date of discovery of last plague-infected rodent, Nov. 6, 1925.

Date of last human case, Jan. 15, 1925.

## GENERAL CURRENT SUMMARY AND WEEKLY REPORTS FROM CITIES

*Diphtheria.*—For the week ended March 20, 1926, 36 States reported 1,150 cases of diphtheria. For the week ended March 21, 1925, the same States reported 1,403 cases of this disease. One hundred and one cities, situated in all parts of the country and having an aggregate population of more than 30,300,000, reported 699 cases of diphtheria for the week ended March 20, 1926. Last year for the corresponding week they reported 919 cases. The estimated expectancy for these cities was 984 cases. The estimated expectancy is based on the experience of the last nine years, excluding epidemics.

*Measles.*—Thirty-four States reported 16,396 cases of measles for the week ended March 20, 1926, and 3,682 cases of this disease for the week ended March 21, 1925. One hundred and one cities reported 10,415 cases of measles for the week this year, and 2,779 cases last year.

*Poliomyelitis.*—The health officers of 36 States reported 18 cases of poliomyelitis for the week ended March 20, 1926. The same States reported 13 cases for the week ended March 21, 1925.

*Scarlet fever.*—Scarlet fever was reported for the week as follows: Thirty-six States—this year, 3,911 cases; last year, 4,350 cases; 101 cities—this year, 1,751 cases; last year, 2,355 cases; estimated expectancy, 1,242 cases.

*Smallpox.*—For the week ended March 20, 1926, 36 States reported 905 cases of smallpox. Last year for the corresponding week they reported 1,020 cases. One hundred and one cities reported smallpox for the week as follows: 1926, 211 cases; 1925, 348 cases; estimated expectancy, 142 cases. Eleven deaths from smallpox were reported by these cities for the week this year—8 at Los Angeles, Calif., 1 at Sacramento, Calif., and 2 at San Francisco, Calif.

*Typhoid fever.*—One hundred and sixteen cases of typhoid fever were reported for the week ended March 20, 1926, by 36 States. For the corresponding week of 1925, the same States reported 188 cases of this disease. One hundred and one cities reported 33 cases of typhoid fever for the week this year and 63 cases for the corresponding week last year. The estimated expectancy for these cities was 42 cases.

*Influenza and pneumonia.*—Deaths from influenza and pneumonia were reported for the week by 95 cities, with a population of more than 29,600,000, as follows: 1926, 2,556 deaths; 1925, 1,389.

## City reports for week ended March 20, 1926

The "estimated expectancy" given for diphtheria, poliomyelitis, scarlet fever, smallpox, and typhoid fever is the result of an attempt to ascertain from previous occurrence how many cases of the disease under consideration may be expected to occur during a certain week in the absence of epidemics. It is based on reports to the Public Health Service during the past nine years. It is in most instances the median number of cases reported in the corresponding week of the preceding years. When the reports include several epidemics or when for other reasons the median is unsatisfactory, the epidemic periods are excluded and the estimated expectancy is the mean number of cases reported for the week during nonepidemic years.

If reports have not been received for the full nine years, data are used for as many years as possible, but no year earlier than 1917 is included. In obtaining the estimated expectancy, the figures are smoothed when necessary to avoid abrupt deviations from the usual trend. For some of the diseases given in the table the available data were not sufficient to make it practicable to compute the estimated expectancy.

Division, State, and city	Population July 1, 1925, estimated	Chicken pox, cases reported	Diphtheria		Influenza		Measles, cases reported	Mumps, cases reported	Pneumonia, deaths reported
			Cases, estimated expectancy	Cases reported	Cases reported	Deaths reported			
NEW ENGLAND									
Maine:									
Portland.....	75,333	3	1	0	0	0	61	4	3
New Hampshire:									
Concord.....	22,546	0	0	0	0	0	2	0	4
Vermont:									
Barre.....	10,008	0	0	0	0	0	0	0	0
Burlington.....	24,089	0	0	1	0	0	0	0	0
Massachusetts:									
Boston.....	779,620	36	60	25	56	6	190	17	76
Fall River.....	128,993	2	4	4	3	1	13	0	3
Springfield.....	142,065	7	4	0	2	2	167	0	6
Worcester.....	190,757	1	4	6	1	0	20	0	12
Rhode Island:									
Pawtucket.....	69,760	0	1	0	0	0	58	0	8
Providence.....	267,918	1	10	5	103	4	127	1	12
Connecticut:									
Bridgeport.....	(1)	2	7	3	15	4	7	0	6
Hartford.....	160,197	1	8	9	0	1	56	1	6
New Haven.....	178,927	14	3	2	7	1	29	0	15
MIDDLE ATLANTIC									
New York:									
Buffalo.....	538,016	14	13	10	18	5	11	0	34
New York.....	5,873,356	121	235	139	946	87	2,147	54	608
Rochester.....	316,786	12	9	9	11	16	79	1	38
Syracuse.....	182,003	7	6	2	106	5	102	21	21
New Jersey:									
Camden.....	128,642	8	5	4	3	2	19	1	15
Newark.....	452,513	52	18	11	57	2	557	9	38
Trenton.....	132,020	0	4	5	3	4	5	0	11
Pennsylvania:									
Philadelphia.....	1,979,364	83	84	57	-----	61	751	14	104
Pittsburgh.....	631,563	40	20	13	-----	9	45	0	35
Reading.....	112,707	8	3	2	-----	-----	11	1	17
EAST NORTH CENTRAL									
Ohio:									
Cincinnati.....	409,333	16	10	2	1	7	10	6	15
Cleveland.....	930,435	32	25	13	446	14	317	1	53
Columbus.....	279,836	2	4	3	1	1	494	0	8
Toledo.....	287,380	34	5	6	3	5	165	0	7
Indiana:									
Fort Wayne.....	97,846	13	3	0	0	0	12	0	1
Indianapolis.....	358,819	12	7	5	0	2	1,060	2	29
South Bend.....	80,081	7	1	2	0	0	4	0	1
Terre Haute.....	71,071	3	1	4	0	0	8	0	2
Illinois:									
Chicago.....	2,995,239	96	100	43	577	49	89	15	252
Peoria.....	81,564	1	0	0	0	0	0	3	6
Springfield.....	63,923	13	1	1	3	3	8	5	4
Michigan:									
Detroit.....	1,245,824	24	51	44	27	18	623	14	117
Flint.....	130,316	10	5	4	5	0	10	0	14
Grand Rapids.....	153,698	9	3	1	4	0	23	0	8

1. No estimate made.

## City reports for week ended March 20, 1926—Continued

Division, State, and city	Population July 1, 1925, estimated	Chicken pox, cases re-reported	Diphtheria		Influenza		Measles, cases re-reported	Mumps, cases re-reported	Pneumonia, deaths re-reported
			Cases, estimated expectancy	Cases re-reported	Cases re-reported	Deaths re-reported			
EAST NORTH CENTRAL—continued									
Wisconsin:									
Kenosha.....	50,891	13	2	5	0	0	1	0	3
Madison.....	46,385	5	1	1	0	1	150	1	1
Milwaukee.....	509,192	101	15	18	7	1	114	40	14
Racine.....	67,707	1	1						
Superior.....	39,671	0	0	0	0	0	0	0	0
WEST NORTH CENTRAL									
Minnesota:									
Duluth.....	110,302	15	1	0	0	0	7	0	1
Minneapolis.....	425,435	88	16	14	0	3	209	2	17
St. Paul.....	246,001	21	14	3	0	3	19	6	8
Iowa:									
Davenport.....	52,469	5	1	1	0		0	0	
Des Moines.....	141,441	18	3	0	1		301	31	
Sioux City.....	76,411	3	1	0	0		0	1	
Waterloo.....	36,771	2	0	0	0		11	0	
Missouri:									
Kansas City.....	367,481	28	8	2	9	8	299	8	18
St. Joseph.....	78,342	0	1	0	0	1	0	0	4
St. Louis.....	821,543	40	40	52	2		228	4	
North Dakota:									
Fargo.....	26,403	2	1	0	0	0	0	10	1
Grand Forks.....	14,811	0	0	0	0		4	0	
South Dakota:									
Aberdeen.....	15,036	0	0	0	0		14	57	
Sioux Falls.....	30,127	4	1	0	0	0	4	0	0
Nebraska:									
Lincoln.....	60,941	9	2	1	0	1	0	1	0
Omaha.....	211,768	9	4	0	0	0	26	1	11
Kansas:									
Topeka.....	55,411	6	1	2	0	0	11	0	1
Wichita.....	88,367	10	2	0	0	0	128	1	8
SOUTH ATLANTIC									
Delaware:									
Wilmington.....	122,049	0	2	3	0	0	70	0	16
Maryland:									
Baltimore.....	796,296	73	26	15	33	4	609	132	55
Cumberland.....	33,741	1	1	1	3	0	25	0	1
Frederick.....	12,035	0	0	0	2	1	17	1	2
District of Columbia:									
Washington.....	497,906	37	11	9	0	0	450	0	23
Virginia:									
Lynchburg.....	30,395	11	1	0	0	1	36	1	3
Norfolk.....	(1)	21	2	0	0	0	6	0	17
Richmond.....	186,403	7	2	2	0	2	5	2	6
Roanoke.....	58,208	3	0	2	0	1	94	1	9
West Virginia:									
Charleston.....	49,019	14	0	0	8	1	13	0	2
Huntington.....	63,485	0	1	0	6	0	9	0	2
Wheeling.....	56,208	7	2	0	0	0	72	0	8
North Carolina:									
Raleigh.....	30,371	2	0	0	0	3	0	0	3
Wilmington.....	37,061	14	0	0	0	2	0	3	4
Winston-Salem.....	69,031	11	1	0	0	3	63	6	4
South Carolina:									
Charleston.....	73,125	0	0	1	40	2	0	0	7
Columbia.....	41,225	1	1	0	0	0	1	1	0
Greenville.....	27,311	3	0	0	0	0	0	1	3
Georgia:									
Atlanta.....	(1)	6	2	3	54	4	7	0	13
Brunswick.....	16,809	14	0	0	0	0	0	2	0
Savannah.....	93,134	6	0	1	16	2	11	0	4
Florida:									
St. Petersburg.....	26,847		0			0			1
Tampa.....	94,743	0	2	0	0	1	0	1	6

<sup>1</sup> No estimate made.

## City reports for week ended March 20, 1926—Continued

Division, State, and city	Population July 1, 1925, estimated	Chicken pox, cases reported	Diphtheria		Influenza		Measles, cases reported	Mumps, cases reported	Pneumonia, deaths reported
			Cases, estimated expectancy	Cases reported	Cases reported	Deaths reported			
EAST SOUTH CENTRAL									
Kentucky:									
Covington.....	58,309		1			2			4
Louisville.....	305,935	8	5	1	64	5	302	0	36
Tennessee:									
Memphis.....	174,533	26	5	3	0	6	48	10	9
Nashville.....	136,220	1	1	1	0	12	53	1	13
Alabama:									
Birmingham.....	205,670	29	2	0	115	17	34	2	12
Mobile.....	65,955	0	1	0	1	1	0	1	3
Montgomery.....	46,481	4	0	0	3	0	0	21	0
WEST SOUTH CENTRAL									
Arkansas:									
Fort Smith.....	31,643	9	1	1	0		0	0	
Little Rock.....	74,216	3	1	0	18	2	4	0	4
Louisiana:									
New Orleans.....	414,493	6	9	4	19	12	2	0	15
Shreveport.....	57,857	5	0	1	0	1	0	0	4
Oklahoma:									
Oklahoma City.....	(1)	1	2	0	68	2	1	0	5
Texas:									
Dallas.....	194,450	31	4	11	12	11	1	1	7
Galveston.....	48,375	1	0	0	0	0	0	0	4
Houston.....	164,954	4	2	6	0	3	2	0	14
San Antonio.....	198,069	0	2	1	0	4	1	0	11
MOUNTAIN									
Montana:									
Billings.....	17,971	6	0	0	0	1	0	3	0
Great Falls.....	29,883	12	1	0	0	0	1	5	1
Helena.....	12,037	0	0	0	0	0	0	0	3
Missoula.....	12,668	0	1	0	21	1	0	0	1
Idaho:									
Boise.....	23,042	1	0	0	0	0	2	0	0
Colorado:									
Denver.....	280,911	31	7	7		3	21	1	12
Pueblo.....	43,787	7	1	0	0	0	12	0	4
New Mexico:									
Albuquerque.....	21,000	1	1	0	1	0	0	5	3
Arizona:									
Phoenix.....	38,869	0	0	1	0	1	1	0	1
Utah:									
Salt Lake City.....	130,943	11	3	1	0	0	0	19	0
Nevada:									
Reno.....	12,665	0	0	0	0	0	0	0	1
PACIFIC									
Washington:									
Seattle.....	(1)	28	5	6	0		34	68	
Spokane.....	108,897	16	3	2	0		0	0	
Tacoma.....	104,455	1	1	2	0	0	4	2	0
Oregon:									
Portland.....	282,383	23	4	3	1	0	12	24	10
California:									
Los Angeles.....	(1)	90	37	77	10	4	17	12	22
Sacramento.....	72,280	3	1	4	0	0	2	5	2
San Francisco.....	557,530	49	22	14	1	1	62	21	4

1 No estimate made.



## City reports for week ended March 20, 1926—Continued

Division, State, and city	Scarlet fever		Smallpox			Tuber- culo- sis, deaths re- ported	Typhoid fever			Whoop- ing cough, cases re- ported	Deaths, all causes
	Cases, esti- mated expect- ancy	Cases re- ported	Cases, esti- mated expect- ancy	Cases re- ported	Deaths re- ported		Cases, esti- mated expect- ancy	Cases re- ported	Deaths re- ported		
NEW ENGLAND											
Maine:											
Portland.....	2	10	0	0	0	1	0	0	0	0	23
New Hampshire:											
Concord.....	1	0	0	0	0	0	0	0	0	0	13
Vermont:											
Barre.....	1	0	0	0	0	1	0	0	0	0	6
Burlington.....	1	7	0	0	0	0	0	0	0	0	6
Massachusetts:											
Boston.....	61	101	0	0	0	14	1	0	0	164	349
Fall River.....	3	3	0	0	0	2	0	0	0	1	1
Springfield.....	7	7	0	0	0	1	0	0	0	19	47
Worcester.....	9	9	0	0	0	3	0	0	0	18	59
Rhode Island:											
Pawtucket.....	1	0	0	0	0	0	1	0	0	8	30
Providence.....	9	6	0	0	0	2	0	0	0	2	78
Connecticut:											
Bridgeport.....	9	20	1	0	0	3	0	0	0	5	43
Hartford.....	6	3	0	0	0	0	0	0	0	6	34
New Haven.....	8	12	0	0	0	2	0	0	0	22	68
MIDDLE ATLANTIC											
New York:											
Buffalo.....	20	17	0	0	0	8	1	0	0	31	139
New York.....	278	164	0	0	0	131	7	7	0	88	2,331
Rochester.....	17	15	0	0	0	8	0	0	0	13	133
Syracuse.....	15	1	0	0	0	4	0	0	0	74	91
New Jersey:											
Camden.....	4	9	0	0	0	1	0	0	0	2	53
Newark.....	25	26	0	0	0	10	0	0	0	18	155
Trenton.....	4	7	0	0	0	3	0	1	0	0	57
Pennsylvania:											
Philadelphia.....	75	77	1	0	0	58	3	0	0	39	833
Pittsburgh.....	23	77	0	0	0	14	0	0	0	48	233
Reading.....	3	12	0	0	0	0	0	0	0	7	60
EAST NORTH CENTRAL											
Ohio:											
Cincinnati.....	13	23	2	2	0	7	0	1	0	28	152
Cleveland.....	32	58	1	0	0	23	1	0	0	117	274
Columbus.....	10	16	2	2	0	7	1	0	0	1	86
Toledo.....	19	19	5	0	0	5	0	1	0	43	75
Indiana:											
Fort Wayne.....	4	13	1	0	0	1	1	0	0	2	15
Indianapolis.....	9	20	5	31	0	9	0	0	0	36	142
South Bend.....	4	3	2	2	0	0	0	0	0	3	18
Terre Haute.....	3	5	1	0	0	0	0	0	0	0	21
Illinois:											
Chicago.....	124	142	3	1	0	53	3	0	0	39	1,036
Peoria.....	4	5	1	0	0	1	0	0	0	10	28
Springfield.....	1	5	1	0	0	2	0	0	0	20	30
Michigan:											
Detroit.....	92	139	2	0	0	20	1	2	1	63	509
Flint.....	6	13	1	0	0	0	0	0	0	24	34
Grand Rapids.....	9	25	1	0	0	3	1	0	1	41	48
Wisconsin:											
Kenosha.....	3	2	1	0	0	0	0	0	0	7	5
Madison.....	4	9	0	0	0	0	0	0	0	1	6
Milwaukee.....	30	22	6	0	0	7	0	1	0	105	119
Racine.....	4		1				0				
Superior.....	2	3	5	0	0	3	0	0	0	0	19

1 Pulmonary tuberculosis only.

## City reports for week ended March 20, 1926—Continued

Division, State, and city	Scarlet fever		Smallpox			Tuber- culosis, deaths re- ported	Typhoid fever			Whoop- ing cough, cases re- ported	Deaths, all causes
	Cases, esti- mated expect- ancy	Cases re- ported	Cases, esti- mated expect- ancy	Cases re- ported	Deaths re- ported		Cases, esti- mated expect- ancy	Cases re- ported	Deaths re- ported		
WEST NORTH CEN- TRAL											
Minnesota:											
Duluth.....	5	27	1	0	0	3	0	0	0	16	20
Minneapolis.....	38	68	10	0	0	3	1	0	0	3	113
St. Paul.....	29	36	7	0	0	3	1	0	0	51	69
Iowa:											
Davenport.....	2	1	2	0			0	0		2	
Des Moines.....	7	2	3	1			0	0		15	
Sioux City.....	2	2	1	1			0	0		1	
Waterloo.....	3	1	0	0			0	0		1	
Missouri:											
Kansas City.....	12	28	2	1	0	7	0	0	0	25	138
St. Joseph.....	3	1	0	0	0	1	0	0	0	0	33
St. Louis.....	31	199	5	9	0	7	1	1	0	21	253
North Dakota:											
Fargo.....	1	3	0	0	0	1	0	0	0	0	8
Grand Forks.....	0	0	0	0			0	0		0	
South Dakota:											
Aberdeen.....	4	5	0	0			0	0		1	
Sioux Falls.....	3	0	0	0	0	0	0	0	0	0	4
Nebraska:											
Lincoln.....	3	2	0	0	0	0	0	0	0	13	19
Omaha.....	5	37	6	14	0	0	0	0	0	1	44
Kansas:											
Topeka.....	3	1	0	0	0	0	1	0	0	3	15
Wichita.....	2	1	3	0	0	0	0	0	0	11	32
SOUTH ATLANTIC											
Delaware:											
Wilmington.....	2	5	0	0	0	1	0	0	1	5	39
Maryland:											
Baltimore.....	37	24	0	0	0	19	2	0	0	32	276
Cumberland.....	1	1	0	0	0	0	1	0	0	3	16
Frederick.....	0	2	0	0	0	0	0	0	0	0	6
District of Col.:											
Washington.....	26	19	2	0	0	6	1	0	0	30	148
Virginia:											
Lynchburg.....	0	3	0	0	0	1	0	0	0	6	11
Norfolk.....	2	9	0	0	0	2	0	0	0	6	
Richmond.....	2	4	0	0	0	6	0	0	0	3	63
Roanoke.....	0	4	0	1	0	1	0	0	0	0	35
West Virginia:											
Charleston.....	0	1	1	0	0	0	0	6	0	8	27
Huntington.....	1	2	1	0	0	3	0	0	1	0	19
Wheeling.....	2	3	0	0	0	0	1	3	0	0	30
North Carolina:											
Raleigh.....	0	0	0	0	0	1	0	0	0	0	18
Wilmington.....	0	3	0	0	0	0	0	0	0	1	14
Winston-Salem.....	0	0	5	1	0	4	0	0	0	1	20
South Carolina:											
Charleston.....	1	1	0	0	0	2	0	0	0	0	30
Columbia.....	1	0	1	1	0	0	0	0	0	0	
Greenville.....	0	0	0	0	0	1	0	0	0	5	19
Georgia:											
Atlanta.....	5	4	3	5	0	9	0	0	0	1	94
Brunswick.....	0	0	0	0	0	1	0	1	0	0	5
Savannah.....	1	1	0	0	0	5	0	0	0	0	31
Florida:											
St. Petersburg.....	1		0		0	1	0		0		17
Tampa.....	0	0	0	24	0	4	2	1	0	0	55

## City reports for week ended March 20, 1926—Continued

Division, State, and city	Scarlet fever		Smallpox			Tuber- culosis, deaths re- ported	Typhoid fever			Whoop- ing cough, cases re- ported	Deaths, all causes
	Cases, esti- mated expect- ancy	Cases re- ported	Cases, esti- mated expect- ancy	Cases re- ported	Deaths re- ported		Cases, esti- mated expect- ancy	Cases re- ported	Deaths re- ported		
EAST SOUTH CENTRAL											
Kentucky:											
Covington.....	2		1		0	3	0		0		28
Louisville.....	5	5	1	0	0	7	0	4	0	4	133
Tennessee:											
Memphis.....	4	15	2	7	0	2	1	0	0	4	65
Nashville.....	3	3	2	0	0	6	0	0	0	1	71
Alabama:											
Birmingham..	2	5	8	9	0	7	1	0	1	9	76
Mobile.....	0	0	2	0	0	0	0	0	0	0	30
Montgomery..	1	0	1	0	0	0	0	0	0	0	38
WEST SOUTH CENTRAL											
Arkansas:											
Fort Smith....	1	0	1	0			0	0		2	
Little Rock....	1	7	1	1	0	4	1	0	0	0	
Louisiana:											
New Orleans..	5	8	3	4	0	15	2	2	0	0	161
Shreveport....	1	1	2	0	0	2	0	0	0	3	31
Oklahoma:											
Oklahoma City	2	2	5	0	0	3	0	0	0	0	29
Texas:											
Dallas.....	2	12	5	3	0	4	1	0	0	13	59
Galveston.....	0	0	0	10	0	2	0	0	0	0	18
Houston.....	1	3	2	14	0	5	0	0	0	0	57
San Antonio...	1	1	0	0	0	0	0	0	0	0	60
MOUNTAIN											
Montana:											
Billings.....	1	0	0	0	0	0	0	0	0	3	9
Great Falls...	1	1	1	0	0	0	0	0	0	2	7
Helena.....	0	0	0	0	0	1	0	0	0	0	7
Missoula.....	0	2	0	0	0	0	0	0	0	0	10
Idaho:											
Boise.....	1	0	0	4	0	0	0	0	0	1	8
Colorado:											
Denver.....	13	21	2	1	0	11	0	1	0	63	82
Pueblo.....	0	2	0	0	0	1	0	0	0	4	12
New Mexico:											
Albuquerque...	1	2	0	0	0	4	0	0	0	10	18
Arizona:											
Phoenix.....	1	0	0	0	0	10	0	0	0	1	23
Utah:											
Salt Lake City	4	1	2	2	0	1	0	0	0	47	24
Nevada:											
Reno.....	0	0	0	0	0	0	0	0	0	0	2
PACIFIC											
Washington:											
Seattle.....	10	36	4	11			1	0		5	
Spokane.....	4	14	7	0			0	0		3	
Tacoma.....	3	2	2	9	0	0	0	0	0	4	
Oregon:											
Portland.....	6	24	13	5	0	3	0	0	0	0	60
California:											
Los Angeles...	20	27	4	37	8	24	2	1	0	9	252
Sacramento....	2	10	1	2	1	1	0	0	0	2	25
San Francisco..	15	15	7	2	2	10	1	1	0	4	122

## City reports for week ended March 20, 1926—Continued

Division, State, and city	Cerebrospinal meningitis		Lethargic encephalitis		Pellagra		Poliomyelitis (infantile paralysis)		
	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases, estimated expectancy	Cases	Deaths
NEW ENGLAND									
Massachusetts:									
Boston.....	1	1	1	1	0	0	0	0	0
Connecticut:									
Hartford.....	0	0	1	0	0	0	0	0	0
MIDDLE ATLANTIC									
New York:									
New York.....	4	3	5	6	0	0	1	1	0
New Jersey:									
Newark.....	0	0	3	1	0	0	0	0	0
Pennsylvania:									
Philadelphia.....	0	0	1	1	0	0	0	0	0
EAST NORTH CENTRAL									
Indiana:									
Indianapolis.....	1	0	0	0	0	0	0	0	0
Michigan:									
Detroit.....	0	0	1	1	0	0	0	0	1
Wisconsin:									
Milwaukee.....	0	0	0	1	0	0	0	0	0
SOUTH ATLANTIC									
Georgia:									
Savannah.....	0	0	0	0	0	1	0	0	0
Florida:									
Tampa.....	1	0	0	0	0	0	0	0	0
WEST SOUTH CENTRAL									
Louisiana:									
Shreveport.....	0	0	0	0	0	1	0	0	0
Texas:									
Galveston.....	0	0	0	0	0	2	0	0	0
MOUNTAIN									
Colorado:									
Denver.....	0	0	0	1	0	0	0	0	0
Utah:									
Salt Lake City.....	1	0	0	0	0	0	0	0	0
PACIFIC									
Washington:									
Seattle.....	2	0	0	0	0	0	0	0	0
Spokane.....	14	0	0	0	0	0	0	0	0
Oregon:									
Portland.....	0	1	0	0	0	0	0	0	0
California:									
Los Angeles.....	1	1	0	0	0	0	0	2	0
San Francisco.....	2	2	0	0	0	0	0	0	0

The following table gives the rates per 100,000 population for 103 cities for the five-week period ended March 20, 1926, compared with those for a like period ended March 21, 1925. The population figures used in computing the rates are approximate estimates as of July 1, 1925 and 1926, respectively, authoritative figures for many of the cities not being available. The 103 cities reporting cases had an estimated aggregate population of nearly 30,000,000 in 1925 and nearly 30,500,000 in 1926. The 96 cities reporting deaths had more than 29,250,000 estimated population in 1925 and

more than 29,750,000 in 1926. The number of cities included in each group and the estimated aggregate populations are shown in a separate table below:

*Summary of weekly reports from cities, February 14 to March 20, 1926—Annual rates per 100,000 population—Compared with rates for the corresponding period of 1925<sup>1</sup>*

## DIPHTHERIA CASE RATES

	Week ended—									
	Feb. 21, 1925	Feb. 20, 1926	Feb. 28, 1925	Feb. 27, 1926	Mar. 7, 1925	Mar. 6, 1926	Mar. 14, 1925	Mar. 13, 1926	Mar. 21, 1925	Mar. 20, 1926
103 cities.....	153	137	<sup>2</sup> 163	135	156	<sup>3</sup> 124	162	<sup>4</sup> 114	161	<sup>5</sup> 120
New England.....	232	116	<sup>2</sup> 184	102	225	95	170	78	141	128
Middle Atlantic.....	162	132	177	118	166	111	213	112	196	125
East North Central.....	116	134	111	140	107	123	120	<sup>6</sup> 107	125	<sup>7</sup> 97
West North Central.....	203	202	289	241	273	<sup>3</sup> 235	195	214	193	144
South Atlantic.....	148	105	108	73	98	109	86	86	129	69
East South Central.....	74	57	47	52	58	47	37	<sup>8</sup> 28	63	<sup>8</sup> 28
West South Central.....	119	90	154	116	137	103	150	103	92	103
Mountain.....	157	218	148	209	83	73	102	109	139	73
Pacific.....	157	205	246	216	224	189	188	148	237	283

## MEASLES CASE RATES

	367	1,994	<sup>2</sup> 342	2,047	403	<sup>3</sup> 1,883	433	<sup>4</sup> 1,693	487	<sup>5</sup> 1,790
103 cities.....										
New England.....	695	2,709	<sup>2</sup> 569	2,188	633	2,446	522	1,959	700	1,725
Middle Atlantic.....	371	1,913	341	2,040	426	1,840	516	1,713	595	1,855
East North Central.....	637	2,899	589	3,080	758	2,601	655	<sup>6</sup> 2,132	726	<sup>7</sup> 2,008
West North Central.....	26	677	70	591	66	<sup>8</sup> 5	72	1,637	90	1,572
South Atlantic.....	104	3,279	77	3,109	94	2,697	138	2,267	179	2,795
East South Central.....	47	960	42	1,235	79	1,323	11	<sup>9</sup> 1,493	68	<sup>8</sup> 2,408
West South Central.....	13	9	48	9	22	17	84	39	40	48
Mountain.....	601	137	833	82	28	209	740	337	555	328
Pacific.....	61	202	85	162	102	278	105	326	180	321

## SCARLET FEVER CASE RATES

	376	309	<sup>2</sup> 390	285	381	<sup>3</sup> 290	415	<sup>4</sup> 303	411	<sup>5</sup> 301
103 cities.....										
New England.....	585	362	<sup>2</sup> 543	354	563	347	515	333	525	404
Middle Atlantic.....	374	208	411	187	370	185	437	192	413	202
East North Central.....	403	372	402	339	403	345	463	<sup>6</sup> 370	460	<sup>7</sup> 341
West North Central.....	719	772	711	695	752	<sup>8</sup> 815	607	893	768	800
South Atlantic.....	157	150	192	201	181	163	207	150	138	158
East South Central.....	205	244	168	171	179	187	326	<sup>9</sup> 149	263	<sup>8</sup> 154
West South Central.....	119	108	137	112	176	90	101	112	128	138
Mountain.....	240	237	305	100	277	337	194	218	416	246
Pacific.....	177	332	213	313	207	313	218	251	207	280

## SMALLPOX CASE RATES

	64	41	<sup>2</sup> 04	41	60	<sup>3</sup> 50	59	<sup>4</sup> 40	61	<sup>5</sup> 36
103 cities.....										
New England.....	0	0	<sup>2</sup> 0	0	0	0	0	0	0	0
Middle Atlantic.....	2	0	3	0	1	0	5	0	8	0
East North Central.....	52	32	26	18	40	23	37	<sup>6</sup> 10	30	<sup>7</sup> 23
West North Central.....	123	63	117	77	111	<sup>8</sup> 62	121	67	98	49
South Atlantic.....	63	51	40	66	48	100	56	49	54	60
East South Central.....	488	104	536	52	599	67	410	<sup>9</sup> 72	593	<sup>8</sup> 88
West South Central.....	79	142	110	133	70	194	70	142	101	138
Mountain.....	83	36	55	46	46	36	92	18	65	64
Pacific.....	204	194	288	245	196	302	235	262	202	164

<sup>1</sup> The figures given in this table are rates per 100,000 population, annual basis, and not the number of cases reported. Populations used are estimated as of July 1, 1925, and 1926, respectively.

<sup>2</sup> Hartford, Conn., not included.

<sup>3</sup> Kansas City, Mo., not included.

<sup>4</sup> Madison, Wis., and Covington, Ky., not included.

<sup>5</sup> Racine, Wis., and Covington, Ky., not included.

<sup>6</sup> Madison, Wis., not included.

<sup>7</sup> Racine, Wis., not included.

<sup>8</sup> Covington, Ky., not included.

Summary of weekly reports from cities, February 14 to March 20, 1926—Annual rates per 100,000 population—Compared with rates for the corresponding period of 1925—Continued

## TYPHOID FEVER CASE RATES

	Week ended—									
	Feb. 21, 1925	Feb. 20, 1926	Feb. 23, 1925	Feb. 27, 1926	Mar. 7, 1925	Mar. 6, 1926	Mar. 14, 1925	Mar. 13, 1926	Mar. 21, 1925	Mar. 20, 1926
108 cities .....	10	7	13	5	10	10	9	8	11	6
New England.....	0	7	13	5	7	12	5	5	29	0
Middle Atlantic.....	10	4	8	2	10	4	5	7	8	4
East North Central.....	5	5	6	1	8	5	3	4	6	7
West North Central.....	6	6	16	2	6	10	10	4	8	2
South Atlantic.....	8	4	19	11	8	6	23	8	21	21
East South Central.....	32	5	32	10	32	10	32	8	42	22
West South Central.....	40	22	40	30	26	39	26	4	22	9
Mountain.....	37	18	74	18	9	146	18	146	0	9
Pacific.....	22	16	8	8	14	16	14	0	0	5

## INFLUENZA DEATH RATES

96 cities .....	29	50	34	47	30	51	33	71	40	76
New England.....	17	2	39	19	17	12	34	24	29	45
Middle Atlantic.....	21	27	20	39	15	68	24	105	29	95
East North Central.....	17	11	23	14	25	14	31	62	46	66
West North Central.....	21	19	36	23	34	5	32	35	40	31
South Atlantic.....	52	137	46	100	50	47	31	77	50	51
East South Central.....	68	161	116	135	95	259	84	197	110	223
West South Central.....	145	298	140	227	135	132	102	104	73	156
Mountain.....	55	109	18	100	18	100	46	146	46	46
Pacific.....	11	96	25	35	25	32	15	21	11	18

## PNEUMONIA DEATH RATES

96 cities .....	207	259	190	260	196	269	214	325	208	373
New England.....	232	175	235	185	215	187	220	217	204	357
Middle Atlantic.....	215	289	184	316	209	357	213	400	216	503
East North Central.....	173	180	180	179	182	206	226	289	208	357
West North Central.....	127	125	150	108	136	96	169	146	167	144
South Atlantic.....	232	496	275	451	251	340	232	301	275	340
East South Central.....	294	266	268	301	247	311	336	380	263	400
West South Central.....	386	553	208	378	218	337	169	255	169	279
Mountain.....	203	173	259	410	129	237	203	300	166	220
Pacific.....	180	174	145	142	124	117	138	92	116	99

<sup>1</sup> Hartford, Conn., not included.

<sup>2</sup> Kansas City, Mo., not included.

<sup>4</sup> Madison, Wis., and Covington, Ky. not included.

<sup>5</sup> Racine, Wis., and Covington, Ky., not included.

<sup>6</sup> Madison, Wis., not included.

<sup>7</sup> Racine, Wis., not included.

<sup>8</sup> Covington, Ky., not included.

Number of cities included in summary of weekly reports, and aggregate population of cities in each group, approximated as of July 1, 1925 and 1926, respectively

Group of cities	Number of cities reporting cases	Number of cities reporting deaths	Aggregate population of cities reporting cases		Aggregate population of cities reporting deaths	
			1925	1926	1925	1926
Total .....	103	96	29,944,996	30,473,129	29,251,658	29,764,201
New England.....	12	12	2,178,124	2,266,124	2,176,124	2,206,124
Middle Atlantic.....	10	10	19,346,970	19,470,970	19,346,970	19,470,970
East North Central.....	16	16	7,481,656	7,655,436	7,481,656	7,655,436
West North Central.....	14	11	2,594,962	2,634,662	2,461,380	2,499,036
South Atlantic.....	21	21	2,716,070	2,776,070	2,716,070	2,776,070
East South Central.....	7	7	993,103	1,094,953	993,103	1,094,953
West South Central.....	8	6	1,184,057	1,212,057	1,078,198	1,103,695
Mountain.....	9	9	563,912	572,773	563,912	572,773
Pacific.....	6	4	1,888,142	1,934,094	1,434,245	1,469,144

## FOREIGN AND INSULAR

### THE FAR EAST

*Report for week ended March 6, 1926.*—The following report for the week ended March 6, 1926, was transmitted by the Far Eastern Bureau of the health section of the League of Nations' secretariat, located at Singapore, to the headquarters at Geneva.

Port	Plague		Cholera		Small-pox		Port	Plague		Cholera		Small-pox	
	Cases	Deaths	Cases	Deaths	Cases	Deaths		Cases	Deaths	Cases	Deaths	Cases	Deaths
Calcutta.....	0	0	45	61	37		Chemulpo.....	0	0	0	0	0	0
Madras.....	0	0	5	13	1		Dairen.....	0	0	0	0	5	3
Rangoon.....	14	1	1	8	8		Adelaide.....	0	0	0	0	0	0
Karachi.....	1	0	0	17	4		Bisbane.....	0	0	0	0	0	0
Negapatam.....	0	0	1	1	1		Fiernantle.....	0	0	0	0	0	0
Colombo.....	1	0	0	0	0		Melbourne.....	0	0	0	0	0	0
Basra.....	0	0	0	1	1		Sydney.....	0	0	0	0	0	0
Singapore.....	0	0	0	0	0		Rockhampton.....	0	0	0	0	0	0
Port Swettenham.....	0	0	0	0	0		Townsville.....	0	0	0	0	0	0
Penang.....	0	0	0	0	0		Port Darwin.....	0	0	0	0	0	0
Batavia.....	0	0	0	0	0		Broome.....	0	0	0	0	0	0
Surabaya.....	3	3	0	0	0		Port Moresby.....	0	0	0	0	0	0
Samarang.....	0	0	0	0	0		Auckland.....	0	0	0	0	0	0
Cheribon.....	1	1	0	0	0		Wellington.....	0	0	0	0	0	0
Belawan Deli.....	0	0	0	0	0		Christchurch.....	0	0	0	0	0	0
Palembang.....	0	0	0	0	0		Invercargill.....	0	0	0	0	0	0
Padang (Sumatra).....	0	0	0	0	0		Noumea (New Caledonia).....	0	0	0	0	0	0
Sabang (Rhio).....	0	0	0	0	0		Honolulu.....	0	0	0	0	0	0
Makassar.....	1	1	0	0	0		Suez.....	0	0	0	0	0	0
Menada.....	0	0	0	0	0		Tor Quarantine Station.....	0	0	0	0	0	0
Banjermasin.....	0	0	0	0	0		Alexandria.....	0	0	0	0	0	0
Pontianak (Borneo).....	0	0	0	0	0		Port Said.....	0	0	0	0	0	0
Sandakan (North Borneo).....	0	0	0	0	0		Mombasa (Kenya).....	0	0	0	0	0	0
Kuching (Sarawak).....	0	0	0	0	10		Zanzibar.....	0	0	0	0	0	0
Timor Dilly.....	0	0	0	0	0		Messowah.....	0	0	0	0	0	0
Manila.....	0	0	2	0	0		Djibuti.....	0	0	0	0	0	0
Zamhoanga.....	0	0	0	0	0		Berbera.....	0	0	0	0	0	0
Bangkok.....	1	1	74	42	7		Mozambique.....	0	0	0	0	0	0
Saigon and Cholon.....	0	0	1	2	1		Lawrence Marques.....	0	0	0	0	0	0
Hai phong.....	0	0	0	0	0		Durban.....	0	0	0	0	0	0
Tourane.....	0	0	0	0	0		East London.....	0	0	0	0	0	0
Hongkong.....	0	0	0	0	0		Port Elizabeth.....	0	0	0	0	0	0
Shanghai.....	0	0	0	0	15		Cape Town.....	0	0	0	0	0	0
Amoy.....	0	0	0	0	2		Port Louis (Mauritius).....	0	0	0	0	0	0
Keelung.....	0	0	0	0	0		Seychelles.....	0	0	0	0	0	0
Fusan.....	0	0	0	0	0								

### BRAZIL

*Plague—Sao Paulo.*—Under date of March 25, 1926, the occurrence of four cases of plague with one death was reported at Sao Paulo, Brazil.

## CANADA

*Communicable diseases—Week ended March 20, 1926.*—The Canadian Minister of Health reports certain communicable diseases in six Provinces of Canada for the week ended March 20, 1926, as follows:

Disease	Nova Scotia	Quebec	Ontario	Manitoba	Saskatchewan	Alberta	Total
Cerebrospinal fever.....		1	1				2
Influenza.....	13			2			15
Lethargic encephalitis.....				1			1
Smallpox.....			7	4	4	1	16
Typhoid fever.....		2	8	1		3	14

## MALTA

*Communicable diseases—February, 1926.*—During the month of February, 1926, communicable diseases were reported in the island of Malta as follows:

Disease	Cases	Disease	Cases
Bronchopneumonia.....	6	Pneumonia.....	8
Cerebrospinal meningitis.....	1	Puerperal fever.....	1
Chicken pox.....	50	Scarlet fever.....	5
Diphtheria.....	8	Smallpox.....	5
Influenza.....	6	Trachoma.....	35
Lethargic encephalitis.....	1	Tuberculosis.....	24
Malta (undulant) fever.....	14	Typhoid fever.....	10
Measles.....	92		

Population, civil, estimated, 223,068.

## PERU

*Plague—January, 1926.*—During the month of January, 1926, plague was reported in Peru with 196 cases and 67 deaths, distributed according to locality as follows:

Place	Cases	Deaths	Place	Cases	Deaths
Ayabaca <sup>1</sup> .....			Lima (city).....	13	2
Barranca.....	9	2	Lima (estates).....	17	6
Barranco.....	1		Mala (cafete).....	5	5
Cajamarca <sup>2</sup> .....	1	1	Miraflores.....	1	
Callao.....	1		Mollendo.....	7	4
Chiclayo.....	2	2	Niepos (Hualgayoc).....	2	2
Chilca <sup>1</sup> .....			Otuzco.....	1	
Chopon.....	9		Pacasmayo.....	26	7
Chota.....	16	2	Puerto Eten.....	1	
Eten (city).....	2		Salaverry.....	1	
Guadalupe.....	2		San Pedro.....	1	
Hualgayoc <sup>2</sup> .....	20	4	Supé.....	1	
Huacho (and estates).....	22	13	Trujillo (and estates).....	16	5
Huancabamba.....	9	7			

<sup>1</sup> Present.

<sup>2</sup> Districts.



*Localities not reporting.*—No report was received from Cuzco and Arequipa, the two largest cities in southern Peru; the same is true of the cis-Andean Departments. The travel between Western Peru and the Amazonian or cis-Andean Departments was stated to be negligible and to be very limited between Cuzco, Arequipa, and other plateau cities of Peru and the sea coast.

#### SAMOA (WESTERN)

*Bacillary dysentery—Filariasis—Hookworm infection.*—Under date of March 8, 1926, 60 cases of bacillary dysentery were reported in western Samoa. During the period December 27, 1925, to March 6, 1926, filariasis and hookworm infection were reported in the same region.

#### TRINIDAD (WEST INDIES)

*Smallpox (alastrim)—Development of new cases.*—Under date of March 16, 1926, smallpox (alastrim) was reported to be spreading in the island of Trinidad. On March 15 two new cases were reported. A total of nine cases developed during the month of February and the first half of March. The first case was in the person of a boy who arrived on a sloop which left Yraga, Venezuela, January 22, 1926. The history of the case showed that the patient was taken ill with fever January 10 and developed a rash January 14, 1926. The cases were stated to have been segregated and the contacts vaccinated, but the disease appeared to be slowly spreading.

*Precautions against spread by travel.*—Tourist steamers refuse to take on passengers from Trinidad, but regular passenger steamships receive passengers who have been vaccinated.

#### UNION OF SOUTH AFRICA

*Influenza—Durban.*—Under date of February 26, 1926, an outbreak of influenza, of a rather severe type, was reported at Durban, Natal, Union of South Africa, with about 50 cases and 2 deaths with pneumonic complications. The outbreak occurred among prisoners in the Durban jail.

*Typhus fever—January, 1926.*—During the month of January, 1926, 89 cases of typhus fever with 18 deaths, occurring among the colored population, and 5 cases occurring among the European population, were notified in the Union of South Africa. For distribution according to locality see page 695.

**CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER**

The reports contained in the following tables must not be considered as complete or final as regards either the lists of countries included or the figures for the particular countries for which reports are given.

**Reports Received During Week Ended April 9, 1926 <sup>1</sup>****CHOLERA**

Place	Date	Cases	Deaths	Remarks
India.....				Jan. 17-23, 1926: Cases, 2,400; deaths, 1,480.
Calcutta.....	Feb. 7-13.....	28	27	
Rangoon.....	Jan. 31-Feb. 13.....	4	2	
Philippine Islands:				
Manila.....	Feb. 7-13.....	2	3	
Province.....				
Batangas.....	Jan. 24-30.....	3	3	
Bulacan.....	.....do.....	1	1	
Laguna.....	.....do.....	4	4	
Pampanga.....	.....do.....		1	
Siam:				
Bangkok.....	Feb. 7-13.....	19	13	

**PLAGUE**

Brazil:				
Sao Paulo.....	Reported Mar. 23.....	4	1	
British East Africa:				
Kenya—				
Kisumu.....	Jan. 31-Feb. 6.....	2		
Ceylon:				
Colombo.....	Feb. 6-13.....	1	1	Feb. 14-20, 1926: Two plague rodents.
India.....				Jan. 17-23, 1926: Cases, 2,783; deaths, 2,248.
Rangoon.....	Jan. 31-Feb. 13.....	16	15	
Java:				
Batavia.....	Feb. 6-12.....	61	60	Province.
Cheribon.....	Dec. 20-26.....		43	
Do.....	Jan. 3-16.....		3	
Koenigin.....	Dec. 27-Jan. 16.....		114	
Pekalongan.....	Dec. 20-26.....		41	
Surabaya.....	Jan. 17-23.....	5	5	
Tegal.....	Dec. 20-26.....		2	
Persia:				
Teheran.....	Oct. 21-Nov. 21.....		12	
Peru.....				January, 1926: Cases, 190; deaths, 67. Reported in 26 localities.
Siam:				
Bangkok.....	Feb. 7-13.....	5	4	
Syria:				
Beirut.....	Jan. 21-31.....	1		

**SMALLPOX**

Algeria:				
Algiers.....	Feb. 21-28.....	4		
Arabia:				
Aden.....	Feb. 21-27.....	3		One imported.
Brazil:				
Pana.....	Feb. 21-Mar. 6.....	3	1	
Canada:				
Alberta.....	Mar. 14-20.....	1		
Manitoba.....	.....do.....	4		
Ontario.....	.....do.....	7		
North Bay.....	Feb. 14-Mar. 13.....	4		
Sarnia.....	Mar. 14-20.....	1		
China:				
Amoy.....	Jan. 31-Feb. 13.....		6	
Chungking.....	Feb. 6-20.....			Present.
Hankow.....	Feb. 14-20.....	1		
South Manchuria—				
Changchun.....	Feb. 21-27.....	1		Railway line.
Mukden.....	.....do.....	2		Do.
Szwatow.....	Feb. 14-20.....			Prevalent.
Egypt:				
Alexandria.....	Feb. 12-18.....	6		

<sup>1</sup> From medical officers of the Public Health Service, American consuls, and other sources.

# **CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued**

## **Reports Received During Week Ended April 9, 1926—Continued**

### **SMALLPOX—Continued**

Place	Date	Cases	Deaths	Remarks
Great Britain:				
England and Wales	Mar. 7-13	212		
I Hull	Mar. 6-13	1		
Newcastle-on-Tyne	Feb. 28-Mar. 13	8	1	
Nottingham	Feb. 21-27	1		
India:				Jan. 17-23, 1926: Cases, 5,259; deaths, 1,104.
Calcutta	Feb. 7-13	61	45	
Karachi	Feb. 14-20	21	5	
Rangoon	Mar. 31-Feb. 13	24	6	
Java:				
Malang	Jan. 10-16	2	2	
Surabaya	Jan. 17-23	35	5	
Malta				Feb. 1-28, 1926: Cases, 5. Total, Oct. 1, 1925-Mar. 12, 1926: Cases, 79.
Mexico:				
Aguascalientes	Mar. 14-20		1	
Guadalajara	Mar. 16-22		1	
San Luis Potosi	Feb. 28-Mar. 20		20	
Tampico	Mar. 1-10	2		Variceloid.
Persia:				
Teheran	Oct. 21-Nov. 21		203	
Do	Nov. 22-Dec. 22		107	
Portugal:				
Lisbon	Feb. 1-28		6	
Siam:				
Bangkok	Feb. 6-13	14	5	

### **TYPHUS FEVER**

Place	Date	Cases	Deaths	Remarks
Egypt:				
Cairo	Dec. 10-16	1		
Palestine:				
Jaffa	Feb. 23-Mar. 1	1		
Poland:				
Warsaw	Nov. 15-18	73	10	
Rumania:				
Constantza	Feb. 1-10	1		
Union of South Africa:				January, 1926: Cases, 89; deaths, 18, among colored population; cases 5 in European population; total, 94 cases, 18 deaths.
Cape Province				Jan. 1-31, 1926: Cases, 74; deaths, 14. (Colored.)
Natal				Jan. 1-31, 1926: Cases, 9; deaths, 1. (Colored.)
Orange Free State				Jan. 1-31, 1926: Cases, 6; deaths, 3. (Colored.)

## **Reports Received from December 26, 1925, to April 2, 1926**

### **CHOLERA**

Place	Date	Cases	Deaths	Remarks
Chosen	October-November, 1925	12	5	
French Settlements in India	Dec. 1-31	880	712	
India:				Oct. 18, 1925, to Jan. 2, 1926: Cases, 21,316; deaths, 12,371.
Calcutta	Nov. 1-28	101	89	
Do	Dec. 6-26		54	
Do	Dec. 27-Jan. 16		41	
Do	Jan. 24-Feb. 6	75	63	
Madras	Nov. 15-Jan. 2	174	70	
Do	Jan. 3-Feb. 13	75	46	
Rangoon	Nov. 8-Dec. 5	4	4	
Do	Jan. 24-30	1	1	

<sup>1</sup> From medical officers of the Public Health Service, American consuls, and other sources.

# **CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued**

**Reports Received from December 26, 1925, to April 2, 1926—Continued**

## **CHOLERA—Continued**

Place	Date	Cases	Deaths	Remarks
Indo-China.....				September, 1925: Cases, 9; deaths, 5. September, 1924: Cases, 7; deaths, 4. (European cases, 2.)
Province—				
Annam.....	Sept. 1-30.....	2	2	
Cochin China.....	do.....	5	3	
Saigon.....	Jan. 4-17.....	2	2	Including 100 square kilometers of surrounding country.
Tonkin.....	September, 1925.....	2		
Japan.....	Aug. 30-Oct. 17.....	409		
Do.....	Oct. 25-Dec. 26.....	113		
Philippine Islands:				
Manila.....	Nov. 9-Jan. 3.....	15	10	
Do.....	Jan. 4-Feb. 6.....		23	
Province—				
Bataan.....	Nov. 30-Dec. 26.....	29	25	
Do.....	Jan. 2-16.....	1	1	
Bulacan.....	Oct. 18-Nov. 7.....	92	64	
Do.....	Nov. 23-Dec. 31.....	200	88	
Do.....	Jan. 2-16.....	5	5	
Laguna.....	Nov. 23-Dec. 26.....	18	14	
Nueva Ecija.....	do.....	6	2	
Pampanga.....	Nov. 1-7.....	1	1	
Do.....	Nov. 23-Dec. 31.....	113	85	
Do.....	Jan. 2-23.....	27	24	
Rizal.....	Sept. 27-Nov. 21.....	75	21	
Do.....	Dec. 21-30.....	14	11	
Romblon.....	Dec. 7-13.....	23	12	
Russia.....	May-June.....	7		
Do.....	July-August.....	4		
Siam:				
Bangkok.....	Oct. 4-Nov. 14.....	108	68	
Do.....	Nov. 22-Dec. 26.....	270	149	
Do.....	Dec. 27-Feb. 6.....	168	112	
On vessel:				
Steamship.....	Oct. 3.....	9		Arrived at Bangkok, Siam: Cases in coolie passengers.

## **PLAGUE**

Argentina.....					Jan. 24-30, 1926: 6 cases, occurring in interior Provinces of Salta and Santa Fe.
Buenos Aires.....	Jan. 24-30.....	1			
Brazil:					
Bahia.....	Nov. 8-Dec. 27.....	3	1		
Do.....	Dec. 28-Jan. 30.....	4	2		
Santos.....	Dec. 8-21.....		2		
British East Africa:					
Kenya—					
Kisumu.....	Nov. 22-Dec. 5.....	1	2		
Uganda Protectorate.....	September-November.....	338	308		
Canary Islands:					
La Laguna.....	Dec. 24.....	3	2		
Las Palmas.....	do.....	1			
Do.....	Jan. 7.....	1	1		
Santa Cruz de Tenerife.....	Dec. 18-27.....	3			
Do.....	Dec. 28-Feb. 1.....	3			
Celebes:					
Makassar.....	Dec. 29-Jan. 26.....	9	9		Netherlands East Indies.
Ceylon:					
Colombo.....	Nov. 15-Dec. 5.....	3	3		1 plague rodent.
Do.....	Dec. 27-Jan. 16.....	2	2		
Do.....	Jan. 24-30.....				Do.
China:					
Nanking.....	Nov. 15-Jan. 23.....				Prevalent.
Ecuador:					
Eloy Alfaro.....	Jan. 1-15.....	1			
Guayaquil.....	Nov. 1-Dec. 31.....	31	12		
Do.....	Jan. 1-31.....	34	14		Rats taken, Nov. 1-Dec. 31, 1925, 49,370; rats found infected, 281. Rats taken, Jan. 1-Feb. 28, 1926, 44,238; rats found infected, 406.
Recreo (country estate).....	do.....	1			Jan. 1-Dec. 9, 1925: Cases, 138. Corresponding period, 1924: Cases, 365.
Egypt:					
Bani Suef.....	Nov. 18.....	1	1		
Fayoum Province.....	Dec. 3-9.....	1	1		

# **CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued**

## **Reports Received from December 26, 1925, to April 2, 1926—Continued**

### **PLAGUE—Continued**

Place	Date	Cases	Deaths	Remarks
Greece:				
Athens.....	Nov. 1-30.....	18	4	Including Piræus.
Do.....	Jan. 1-31.....	14	3	
Herakleion.....	Feb. 4.....	1	—	On island of Crete.
Patras.....	Nov. 13-Dec. 12.....	4	1	
Hawaii Territory:				
Paaulo.....				Jan. 29, 1926: Plague-infected rat found in vicinity.
India.....				Oct. 18, 1925, to Jan. 2, 1926: Cases, 15,135; deaths, 10,677.
Bombay.....	Dec. 6-12.....	1	1	Jan. 3-16, 1926: Cases, 4,680; deaths, 2,625.
Do.....	Jan. 3-9.....	2	2	
Calcutta.....	Dec. 6-12.....	1	1	
Karachi.....	Nov. 1-Dec. 19.....	4	3	
Madras.....	Oct. 25-Nov. 7.....	75	41	
Do.....	Nov. 15-21.....	35	22	
Do.....	Dec. 20-26.....	108	64	
Do.....	Jan. 3-9.....	135	83	
Do.....	Jan. 17-23.....	113	73	
Rangoon.....	Oct. 25-Dec. 26.....	23	15	
Do.....	Dec. 27-Jan. 30.....	17	15	
Indo-China.....				September, October, 1925: Cases, 25; deaths, 23.
Province—				
Cambodia.....	Sept. 1-30.....	11	11	
Cochin China.....	September-October.....	14	12	
Iraq.....				
Bagdad.....	Dec. 13-Jan. 2.....	7	3	
Do.....	Jan. 10-30.....	12	8	
Java.....				Province.
Batavia.....	Oct. 24-Nov. 6.....	94	89	
Do.....	Nov. 14-Jan. 1.....	315	297	
Do.....	Jan. 2-Feb. 5.....	260	250	
Cheribon.....	Sept. 27-Oct. 17.....	166	—	
Do.....	Nov. 15-Dec. 19.....	96	—	
Do.....	Jan. 17-23.....	4	4	
Djakakarta.....	Oct. 20-Nov. 9.....	—	—	Epidemic in 1 locality.
Kediri.....	Dec. 7.....	—	—	Do.
Pekalongan.....	Sept. 27-Oct. 17.....	—	42	
Do.....	Nov. 8-Dec. 19.....	—	131	
Rembang.....	Oct. 20.....	—	—	Do.
Surabaya.....	Oct. 11-Dec. 26.....	59	59	
Do.....	Dec. 27-Jan. 9.....	16	16	
Tegul.....	Sept. 27-Oct. 17.....	6	6	
Do.....	Nov. 8-Dec. 26.....	—	31	
Madagascar.....				Nov. 1-December, 1925: Cases, 632; deaths, 503. Jan. 1-15, 1926: Cases, 161; deaths, 151. Bubonic, pneumonic, and septicemic.
Province—				
Ambositra.....	Dec. 16-31.....	9	7	
Do.....	Jan. 1-15.....	2	2	
Itasy.....	Sept. 16-Oct. 31.....	20	20	
Do.....	Nov. 10-Dec. 16.....	34	34	
Do.....	Jan. 1-15.....	29	29	
Morgananga.....	Sept. 16-Dec. 31.....	49	48	
Do.....	Jan. 1-15.....	15	15	
Tananarive.....	Sept. 16-Nov. 30.....	368	341	
Do.....	Dec. 16-31.....	152	143	
Do.....	Jan. 1-15.....	111	100	
Town—				
Fort Dauphin.....	Sept. 16-Nov. 30.....	6	3	
Tamatave (port).....	Sept. 10-30.....	3	2	
Do.....	Oct. 16-Nov. 30.....	9	9	
Tananarive.....	Sept. 16-30.....	2	2	
Do.....	Nov. 1-30.....	11	11	
Do.....	Jan. 1-15.....	4	4	
Mauritius Island.....	Sept. 20-Dec. 26.....	21	18	
Pamplemousses.....	Oct. 1-Nov. 30.....	3	2	
Port Louis.....	do.....	4	1	
Rivière du Rempart.....	Oct. 1-31.....	2	—	
Nigeria.....	August-November.....	559	419	
Peru:				
Huacho.....	Jan. 26.....	15	—	Port 60 miles north of Callao.
Lima.....	Jan. 1-31.....	20	—	In hospital. Some cases in Province.
Mollendo.....	do.....	—	—	12 or 15 cases reported unofficially.
Russia.....	May-June.....	67	—	
Do.....	July-October.....	166	—	
Senegal.....	September-October.....	45	25	

# **CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued**

## **Reports Received from December 26, 1925, to April 2, 1926—Continued**

### **PLAGUE—Continued**

Place	Date	Cases	Deaths	Remarks
Siam	Aug. 23-Dec. 26	65	53	
Bangkok	Nov. 15-28	3	3	
Do	Jan. 3-30	38	33	
Straits Settlements:				
Singapore	Nov. 1-Dec. 5	8	8	
Do	Jan. 3-9	2	2	
Syria:				
Beirut	Nov. 11-20	1		
Union of South Africa:				
Cape Province—				
Kimberley district	Dec. 13-19	1		
Middleburg district	Dec. 6-12	1		European.
Steynsburg district	Nov. 15-21	1		Native. On farm.
Orange Free State—				
Boshof district	Nov. 29-Dec. 5	1	1	In native.
Botnaville district	Dec. 6-12	1	1	Native. On farm.
On vessel:				
Steamship Cid				Jan. 29, 1926. At Buenaventura, Colombia. Rat was killed while jumping ashore from vessel.

### **SMALLPOX**

Algeria:				
Algiers	Nov. 21-Dec. 31	177		
Do	Jan. 1-10	64		
Do	Jan. 21-Feb. 10	51		
Arabia:				
Aden	Nov. 20-Dec. 5	1		Imported.
Do	Jan. 10-Feb. 20	6	1	
Argentina:				
Rosario	October		1	
Australia:				
Queensland—				
Brisbane	Dec. 9-15	1		
Bahamas	Feb. 23			In Nassau district. Stated to have been imported.
Brazil:				
Manaos	Dec. 1-31		12	
Do	Jan. 31-Feb. 20		6	
Para	Jan. 10-30	25	5	
Rio de Janeiro	Nov. 1-26	134	72	
Do	Dec. 6-26	65	26	
Do	Dec. 27-Feb. 6	131	100	
British East Africa:				
Kenya—				
Mombasa	Nov. 15-Dec. 19	14	6	
Do	Dec. 27-Jan. 2	1		From mainland.
Uganda Protectorate	Sept. 1-Oct. 31	8	4	
British South Africa:				
Northern Rhodesia	Jan. 5-11	2		
Southern Rhodesia	Nov. 13-Dec. 23	3		
Canada				Sept. 13-Jan. 2: In 7 Provinces, 186 cases. Jan. 3-Feb. 27, 1926: Cases, 277.
Alberta	Jan. 10-Mar. 13	30		From Drumheller, vicinity of Calgary.
Calgary	Dec. 13-19	1		
British Columbia—				
Vancouver	Jan. 4-10	1		
Manitoba	Jan. 3-Feb. 27	26		
Winnipeg	Dec. 13-19	2		
Do	Jan. 3-Mar. 20	11		
New Brunswick—				
Northumberland	Dec. 6-13	1		
Ontario	December, 1925	32	1	
Do	Jan. 1-Feb. 13	103		
Do	Feb. 21-27	19		
Do	Mar. 7-13	6		
Admaston	Jan. 1-Feb. 1	16		Township.
Alice and Fraser	Feb. 1-28	6		Do.
King	do	7		Do.
Wilmot	do	6		Do.
Belleville	do	4		
Kingston	Mar. 8-14	1		
Kitchener	do	25		

# **CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued**

**Reports Received from December 26, 1925, to April 2, 1926—Continued**

## **SMALLPOX—Continued**

Place	Date	Cases	Deaths	Remarks
Canada—Continued				
Ontario—Continued				
North Bay.....	do.....	3	—	
Ottawa.....	Dec. 6-12.....	2	—	
Do.....	Jan. 3-Feb. 6.....	2	—	
Toronto.....	Dec. 27-Jan. 2.....	1	—	
Do.....	Jan. 3-Feb. 28.....	25	—	
Trenton.....	do.....	15	—	
Saskatchewan.....	Jan. 3-Feb. 13.....	39	—	
Do.....	Feb. 21-Mar. 13.....	13	—	
Moose Jaw.....	do.....	2	—	
Regina.....	Jan. 24-Mar. 13.....	3	—	
Saskatoon.....	Feb. 14-20.....	1	—	
Ceylon:				
Colombo.....	Dec. 6-12.....	1	—	Port case.
Do.....	Jan. 3-Feb. 6.....	5	—	
Chile:				
Punta Arenas.....	Dec. 13-26.....	—	8	
Do.....	Dec. 27-Jan. 2.....	—	4	
China:				
Amoy.....	Oct. 25-Dec. 19.....	—	1	
Do.....	Jan. 10-30.....	—	3	
Antung.....	Dec. 7-20.....	2	—	
Chungking.....	Nov. 15-Feb. 6.....	—	—	Present.
Foochow.....	Nov. 1-Feb. 6.....	—	—	Do.
Hankow.....	Nov. 14-Dec. 26.....	4	—	
Do.....	Jan. 10-16.....	1	—	
Hongkong.....	Nov. 22-Dec. 26.....	4	—	
Do.....	Jan. 3-Feb. 6.....	7	3	
Manchuria—				
An-shan.....	Dec. 6-12.....	1	—	
Do.....	Jan. 10-Feb. 13.....	6	—	South Manchurian Railway.
Changchun.....	Jan. 10-Feb. 20.....	19	—	Do.
Dairen.....	Oct. 19-Dec. 27.....	73	15	
Do.....	Dec. 28-Jan. 31.....	40	11	
Fushun.....	Jan. 17-23.....	1	—	Do.
Harbin.....	Jan. 1-Feb. 18.....	2	—	
Kai-yuan.....	Jan. 10-30.....	4	—	Do.
Kungchuling.....	Jan. 31-Feb. 20.....	2	—	
Lio-yang.....	Jan. 17-23.....	1	—	Do.
Mukden.....	Oct. 24-Nov. 15.....	1	—	Do.
Do.....	Jan. 24-Feb. 13.....	2	—	Do.
Tieh-ling.....	do.....	2	—	
Nanking.....	Nov. 21-Dec. 26.....	—	—	Present.
Do.....	Dec. 27-Feb. 13.....	—	—	Do.
Shanghai.....	Oct. 25-Jan. 2.....	37	36	
Do.....	Jan. 3-Feb. 20.....	46	94	Cases, foreign only.
Swatow.....	Nov. 22-Feb. 13.....	—	—	Prevalent.
Tientsin.....	Nov. 1-Dec. 19.....	2	—	
Do.....	Jan. 23-30.....	1	—	
Chosen:				
Seishin.....	Jan. 1-31.....	5	2	
Egypt:				
Alexandria.....	Dec. 3-31.....	5	2	
Do.....	Jan. 8-14.....	2	1	
Do.....	Jan. 29-Feb. 11.....	4	1	
Esthonia.....				November, 1925: Cases 3.
France.....				September-December, 1925: Cases, 253.
Havre.....	Jan. 25-31.....	—	9	
Gold Coast.....	September, Dec-ember.....	33	5	
Great Britain:				
England and Wales				Nov. 15-Dec. 26, 1925: Cases, 790.
Bull.....	Dec. 27-Jan. 23.....	29	—	Dec. 27-Mar. 6, 1926: Cases 3,902.
Do.....	Feb. 7-27.....	7	—	
Leeds.....	Jan. 14-Feb. 6.....	4	—	
London.....	Jan. 31-Feb. 6.....	—	1	
Nottingham.....	Nov. 22-Dec. 26.....	9	—	
Do.....	Dec. 27-Jan. 9.....	2	—	
Sheffield.....	Nov. 22-Dec. 12.....	7	—	
Do.....	Dec. 20-26.....	3	—	
Do.....	Dec. 27-Feb. 6.....	12	—	
Newcastle-on-Tyne.....	Nov. 29-Dec. 19.....	6	—	
Do.....	Dec. 27-Feb. 27.....	24	—	
Sheffield.....	Feb. 28-Mar. 6.....	3	—	
South Shields.....	Feb. 9.....	—	—	Reported present in severe form.

# **CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued**

## **Reports Received from December 26, 1925, to April 2, 1926—Continued**

### **SMALLPOX—Continued**

Place	Date	Cases	Deaths	Remarks
Greece				Oct. 1-31, 1925: Cases, 16.
Athens	Nov. 1-Dec. 31	18	1	
Do.	Jan. 1-Feb. 28	50	3	
Saloniki	Feb. 16-22		1	
India				Oct. 18-Dec. 26, 1925: Cases, 10,472; deaths, 4,446. Dec. 27, 1925-Jan. 16, 1926: Cases, 18,016; deaths, 7,378.
Bombay	Nov. 8-Dec. 26	26	20	
Do.	Dec. 27-Feb. 13	101	53	
Calcutta	Nov. 29-Dec. 26	48	25	
Do.	Dec. 27-Feb. 6	219	125	
Karschi	Nov. 1-21	22		
Do.	Nov. 29-Dec. 5	4	2	
Do.	Dec. 13-19	3		
Do.	Dec. 29-Feb. 13	38	15	
Madras	Jan. 24-30	4	1	
Rangoon	Oct. 25-Nov. 28	3		
Do.	Dec. 6-26	4	1	
Do.	Dec. 27-Jan. 16	13	1	
Do.	Jan. 24-30	6		
Indo-China				September-October, 1925: Cases, 204; deaths, 62. September, 1924: Cases, 78; deaths, 22.
Province—Annam	Sept. 1-Oct. 31	90	23	September, 1924: Cases, 8; deaths, 2.
Cambodia	do.	72	30	September, 1924: Cases, 16; deaths, 1.
Cochin China	do.	61	30	September, 1921: Cases, 43; deaths, 19.
Saigon	Dec. 21-27	2	1	Including 100 kilometers of surrounding country.
Do.	Jan. 1-Feb. 7	6		
Tonkin	Dec. 2-Jan. 2	22		Sept. 6-Oct. 17, 1925: Cases, 81; deaths, 40.
Iraq				
Bagdad	Nov. 1-Dec. 26	19	15	
Do.	Dec. 27-Jan. 30	11	4	
Italy				Aug. 2, 1925; Jan. 2, 1926: Cases, 52. Jan. 3-10/1926: Cases, 12.
Catania	Feb. 15-28	1	1	
Genoa	Jan. 21-Feb. 10	1		
Rome	Oct. 12-25	1		
Jamaica				Nov. 29-Dec. 26, 1925: Cases, 95. Dec. 27, 1925-Feb. 27, 1926: Cases, 260. Reported as alastrim.
Kingston	Nov. 29-Dec. 26	43		Reported as alastrim.
Do.	Dec. 27-Jan. 30	48		Do
Japan:				
Nagasaki	Feb. 15-21	1		
Taiwan	Nov. 11-Dec. 10	3		
Yokohama	Dec. 14-20	1		
Do.	Feb. 23	7		
Java:				
Batavia	Oct. 24-30	1		
Do.	Nov. 14-Dec. 25	7		
Buitenzorg	Nov. 29-Dec. 5	1		
Cheribon	Nov. 8-Dec. 12	2		
Kraksaan	Oct. 11-17	11		
Malang	Oct. 11-Jan. 2	3		
North Bantam	Oct. 4-17	4		
Pekalongan	Oct. 25-31	1		
Probolingo	Oct. 11-17	1		
Surabaya	Oct. 11-Dec. 26	633	104	
Do.	Dec. 27-Jan. 16	66	22	
South Bantam	Oct. 11-17	1		
Tegal	Oct. 4-10	9	1	
Latvia				December, 1925: Cases, 3.
Do.	Nov. 1-Dec. 21	21	3	
Malta	Jan. 1-31	15		
Mexico				July-September, 1925: Deaths, 1,157.
Agascalientes	Dec. 13-Jan. 2	4	3	
Do.	Jan. 3-30	7	7	
Do.	Feb. 14-Mar. 6		1	
Durango	Dec. 1-31		1	
Do.	Jan. 1-31		2	
Guadalajara	Dec. 27-Mar. 8		12	
Mexico City	Nov. 28-Dec. 5	1		Including municipalities in Federal District.
Do.	Jan. 3-Feb. 6	4		Do.
San Luis Potosi	Jan. 17-Feb. 27		33	
Tampico	Dec. 21-Jan. 2	1	1	
Do.	Jan. 2-Feb. 28	6		
Torreon	Nov. 1-Dec. 31		51	
Do.	Jan. 1-Feb. 28		54	



# CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued

Reports Received from December 26, 1925, to April 2, 1926—Continued

## SMALLPOX—Continued

Place	Date	Cases	Deaths	Remarks
Netherlands: The Hague.....	Jan. 30-Feb. 6.....	1	1	August-November, 1925: Cases, 347; deaths, 6.
Nigeria.....				
Palestine: Hebron.....	Jan. 26-Feb. 1.....	2		
Tiberias.....	Feb. 9-15.....	1		
Persia: Teheran.....	July 23-Oct. 22.....		465	Nov. 1-28, 1925: Cases, 9.
Peru: Arequipa.....	Oct. 1-Dec. 31.....		2	
Poland.....				
Portugal: Lisbon.....	Oct. 4-31.....	124		
Do.....	Nov. 16-Dec. 27.....		60	May-June, 1925: Cases, 2,333.
Do.....	Nov. 14-Dec. 26.....	187		
Do.....	Dec. 27-Feb. 13.....	87	23	
Oporto.....	Nov. 22-Dec. 19.....	2	3	
Do.....	Dec. 27-Feb. 13.....	2	1	July 12-Sept. 5, 1925: Cases, 21; deaths, 6.
Rumania.....	August-October.....	3		
Russia: Do.....	July-October.....	1,563		
Siam: Bangkok.....	Dec. 20-25.....	3	1	
Do.....	Dec. 26-Feb. 6.....	37	12	June 28-Nov. 21, 1925: Cases, 62. Dec. 27, 1925-Jan. 30, 1926: Cases, 37.
Sierra Leone: Konno district.....	Dec. 16-31.....	5		
Spain: Madrid.....	Year 1925.....		18	
Do.....	Jan. 1-31.....		1	
Malaga.....	Nov. 29-Dec. 5.....		2	Outbreaks.
Do.....	Dec. 27-Jan. 2.....		1	
Valencia.....	Dec. 20-26.....	1		
Do.....	Dec. 27-Jan. 2.....	1		
Do.....	Jan. 10-Feb. 6.....	9		Outbreaks. In native compound.
Do.....	Feb. 14-Mar. 5.....	6		
Straits Settlements: Singapore.....	Dec. 20-26.....	1		
Do.....	Jan. 10-16.....	2	1	
Switzerland: Lucerne.....	Oct. 1-Nov. 30.....	8		Outbreaks.
Zurich.....	Dec. 27-Jan. 2.....	1		
Trinidad (West Indies): Port of Spain.....	January-Feb. 20.....	3		
Tunisia: Tunis.....	Nov. 21-30.....	2		
Do.....	Dec. 11-31.....	10	1	Outbreaks.
Do.....	Jan. 1-Feb. 20.....	6		
Union of South Africa: Cape Province.....	Jan. 17-23.....			
Orange Free State— Kuruman district.....	Jan. 10-16.....			
Ladybrand district.....	Dec. 27-Jan. 2.....			Outbreaks. In native compound.
Transvaal— Belfast district.....	do.....			
Germiston district.....	Jan. 2-9.....			
Pretoria district.....	Dec. 6-12.....			
On vessel.....	Feb. 21.....	2		Mexican steamer Montezuma, at Port of Ensenada, Mexico.

## TYPHUS FEVER

Algeria: Algiers.....	Nov. 1-Dec. 20.....	2	
Do.....	Jan. 1-Feb. 28.....	9	
Argentina: Rosario.....	Oct. 13-Dec. 31.....	2	
Bulgaria.....	Sept. 1-Dec. 31.....	50	3
Sofia.....	Dec. 25-31.....	1	
Do.....	Jan. 8-14.....	2	

# **CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued**

**Reports Received from December 26, 1925, to April 2, 1926—Continued**

## **TYPHUS FEVER—Continued**

Place	Date	Cases	Deaths	Remarks
Chile				Dec. 15-31, 1925: Cases, 46.
Achao	Dec. 15-31	1		
Bulnes	do	1		
Chillan	do	24		
Concepcion	do	6		
Linares	do	1		
Los Angeles	do	5		
Penco	do	2		
San Carlos	do	1		
Talca	do	1		
Valparaiso	do	4		
Do	Nov. 29-Jan. 2		2	
China:				
Antung	Nov. 20-Dec. 27	5	1	
Do	Jan. 4-10	1		
Hongkong	Dec. 27-Jan. 2	1		
Manchuria				
Sarbin	Dec. 17-Feb. 4	3		
Czechoslovakia	October-December	145	1	
Egypt:				
Alexandria	Jan. 8-14	1		
Cairo	Nov. 5-11	2	2	
Port Said	Nov. 19-25	1		
Finland				October, 1925: 1 case.
France	July-October	4		
Germany	Oct. 25-31	1		
Greece				December, 1925: Cases, 12.
Athens	Nov. 1-30	11	2	
Do	Jan. 1-Feb. 28	38	7	
Saloniki	Dec. 29-Jan. 4	1		
Do	Feb. 2-8	1		
Hungary				November-December, 1925: Cases, 16.
Ireland:				
Cork County—				
Cork	Dec. 28-Jan. 1	2		
Do	Jan. 2-8	5		
Dumanway	Nov. 14	1		
Galway County	Oct. 17	1		
Latvia	October-December	4		
Lithuania				September-October, 1925: Cases, 8, deaths, 1.
Mexico				July-September, 1925: Deaths, 90.
Aguascalientes	Dec. 14-19	1		
Durango	Dec. 1-31		1	
Do	Jan. 1-31		1	
Guadalajara	Dec. 8-28		2	
Do	Dec. 29-Jan. 4		1	
Mexico City	Nov. 22-Dec. 26	145		Including municipalities in Federal District.
Do	Dec. 27-Mar. 6	79		Do.
San Luis Potosi	Feb. 6-13		1	
Tampico	Dec. 21-Jan. 10	1		
Torreón	November, 1925		1	
Vera Cruz	Feb. 12		1	
Morocco	August-December	93		
Norway				November-December, 1925: Cases, 2.
Palestine:				
Gaza	Dec. 18	1		
Jaffa	Dec. 17	1		
Nazareth	Nov. 3-9	1		
Safad	Nov. 24-30	1		
Tel-Aviv	do	1		
Peru:				
Arequipa	October-December		3	
Poland	Oct. 11-Nov. 14	142	16	
Do	Nov. 29-Jan. 2	247	18	
Do	Jan. 3-16	190	14	
Rumania				July-October, 1925: Cases, 181; deaths, 22.
Russia				May-June, 1925: Cases, 10,686.
Do				July-October, 1925: Cases, 6,035.
Turkey:				
Constantinople	Jan. 24-30	3		
Do	Feb. 9-22	5	3	From unofficial sources (Press).

# **CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued**

**Reports Received from December 26, 1925, to April 2, 1926—Continued**

## **TYPHUS FEVER—Continued**

Place	Date	Cases	Deaths	Remarks
Union of South Africa.....	-----	-----	-----	October, 1925: Cases, 88; deaths, 7 (colored). Cases, European, 7. December, 1925: Cases, 73; deaths, 9. Colored: Cases, 73; deaths, 9.
Cape Province.....	Oct. 1-31.....	63	5	Colored.
Do.....	Nov. 8-Dec. 31.....	47	8	
Do.....	Jan. 3-Feb. 6.....	-----	-----	Outbreaks.
Grahamstown.....	Jan. 24-30.....	2	-----	
Middleburg district.....	Dec. 6-12.....	1	-----	European. On farm.
Natal.....	Oct. 1-Dec. 5.....	1	-----	
Durban.....	Jan. 3-16.....	1	-----	
Orange Free State.....	Nov. 29-Dec. 5.....	23	1	
Do.....	Dec. 1-31.....	8	1	
Bethulia district.....	Dec. 6-12.....	-----	-----	Outbreaks
Bothaville district.....	do.....	1	-----	Native. On farm.
Transvaal.....	Oct. 1-31.....	1	1	
Do.....	Dec. 1-31.....	18	-----	
Bloemhof district.....	Dec. 27-Jan. 2.....	-----	-----	Outbreaks. On farm.
Yugoslavia.....	-----	-----	-----	Jan. 1-Feb. 21, 1926. Cases, 81; deaths, 12.

## **YELLOW FEVER**

Gold Coast.....	Sept 1-Dec. 31.....	4	3	
Nigeria.....	August-October.....	3	2	
Senegal.....	November, 1925.....	3	2	



TREASURY DEPARTMENT

# PUBLIC HEALTH REPORTS

ISSUED WEEKLY

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VOLUME 41 :: :: NUMBER 16

APRIL 16 - - 1926

## SPECIAL ARTICLES

Relative Incidence of Typhoid in Cities, Towns, and Country  
Directory of Whole-time County Health Officers, 1926



WASHINGTON  
GOVERNMENT PRINTING OFFICE

1926

# UNITED STATES PUBLIC HEALTH SERVICE

HUGH S. CUMMING, *Surgeon General*

## DIVISION OF SANITARY REPORTS AND STATISTICS

Asst. Surg. Gen. B. J. LLOYD, *Chief of Division*

The PUBLIC HEALTH REPORTS are issued weekly by the United States Public Health Service through its Division of Sanitary Reports and Statistics, pursuant to acts of Congress approved February 15, 1893, and August 14, 1912.

They contain: (1) Current information of the prevalence and geographic distribution of preventable diseases in the United States in so far as data are obtainable, and of cholera, plague, smallpox, typhus fever, yellow fever, and other communicable diseases throughout the world. (2) Articles relating to the cause, prevention, or control of disease. (3) Other pertinent information regarding sanitation and the conservation of the public health.

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# PUBLIC HEALTH REPORTS

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APRIL 16, 1926

No. 16

## THE RELATIVE INCIDENCE OF TYPHOID FEVER IN CITIES, TOWNS, AND COUNTRY DISTRICTS OF A SOUTHERN STATE

By CHAS. N. LEACH, M. D., Alabama State Board of Health, and KENNETH F. MAXCY, Passed Assistant Surgeon, United States Public Health Service

Knowing the epidemiology of typhoid fever, one would suspect that its highest incidence would be found in the small town—that unit of population where communal living is most primitive and sanitary safeguards are least in evidence. Figures proving the point have hitherto been lacking, at least so far as concerns the Southern United States.

In connection with the study of typhoid fever in Alabama an attempt has been made to establish its relative incidence in population units of various sizes. Since the situation revealed may well apply to other Southern States with a large rural population, the results of analyses of the data are herewith presented.

### ANALYSES OF DATA

In Table 1, the cases of typhoid fever which were reported during 1924 and 1925 have been distributed according to their occurrence in the country districts and small unincorporated villages (Group I) and in the incorporated towns and cities of different sized populations (Groups II, III, IV, V, VI, and VII).

In Table 2 the deaths from typhoid which occurred during the same two years have been distributed in like manner.

TABLE 1.—*Distribution of typhoid morbidity in civil divisions of Alabama, 1924 and 1925*

Group No.	Division	Number of towns or cities in group	Population (census of 1920)	Number of cases		Case rate per 10,000 population		
				1924	1925	1924	1925	Mean rate, 1924 and 1925
		(a)	(b)	(c)	(d)	(e)	(f)	(g)
I	Country and unincorporated towns.....		1,664,868	667	1,074	4.0	6.4	5.2
	Incorporated towns and cities:							
II	500-1,000 population.....	60	52,065	199	263	38.2	50.5	44.3
III	1,000-2,500 population.....	56	103,787	337	300	32.5	28.9	30.7
IV	2,500-5,000 population.....	21	85,638	171	185	20.0	16.1	18.0
V	5,000-10,000 population.....	8	59,498	110	86	18.5	14.5	16.5
VI	10,000-25,000 population.....	7	96,293	141	93	14.2	9.4	11.8
VII	Over 25,000 population.....	3	283,047	107	190	5.9	6.7	6.3
	Total.....	155	2,348,174	1,792	1,244	7.6	9.1	8.4

1 Official total of cases for 1924—1,849; for 1925—2,348.

TABLE 2.—*Distribution of typhoid mortality in civil divisions of Alabama, 1924 and 1925*

Group No.	Division	Number of towns or cities in group	Population (census of 1920)	Number of deaths		Death rate per 10,000 population		
				1924	1925	1924	1925	Mean rate 1924 and 1925
		(a)	(b)	(c)	(d)	(e)	(f)	(g)
I	Country and unincorporated towns.....	-----	1,604,868	196	224	1.2	1.3	1.3
	Incorporated towns and cities:							
II	500-1,000 population.....	60	52,065	22	34	4.2	6.5	5.4
III	1,000-2,500 population.....	56	103,767	37	36	3.6	3.5	3.5
IV	2,500-5,000 population.....	21	85,636	21	21	2.5	2.5	2.5
V	5,000-10,000 population.....	8	59,498	15	18	2.5	3.0	2.8
VI	10,000-25,000 population.....	7	99,293	23	16	2.3	1.6	2.0
VII	Over 25,000 population.....	3	283,047	21	32	0.7	1.1	0.9
	Total.....	155	2,348,174	1335	1381	1.4	1.6	1.5

<sup>1</sup> Total figures for the two years are exclusive of 34 deaths in which the location was in doubt and any delayed certificates of death from typhoid fever occurring in 1925 coming in after February, 1926.

The accompanying figure, based upon these tables, presents for graphic comparison the mean morbidity rate and the mean mortality rate for each group.

Inspection of the tables and graph reveals the fact that the highest incidence of typhoid, as gauged by both morbidity and mortality, is found in the small incorporated towns having a population of 500 to 1,000 (Group II). In the groups III, IV, V, VI, VII, which include towns of successively larger population, the rates become progressively smaller, reaching a minimum figure in the three largest cities of the State (Group VII). In direct contrast to the high rate of the small towns is the low rate in the country districts and the small unincorporated communities. The rate in this last group (I) is as low as that in the large cities (VII).

While the variation of the rate inversely with the size of the town is more or less according to expectation, the finding that typhoid fever is no more prevalent among persons living in the small unincorporated communities and country districts than among persons living in the relatively well sanitated larger cities will be, to most sanitarians, a rather interesting and new conception. The question immediately occurs whether this difference may not be due to errors in the collection and tabulation of the morbidity and mortality records.

#### ERRORS

There are two chief sources of error in a distribution of this type: First, the tendency of the physician to record as in a town, cases which properly belong to the surrounding country districts; second, differences in the completeness of reporting in the country districts as compared with reporting in the incorporated towns.

In order to check the effect of the first error a special study of the location of the cases which occurred during 1925 was undertaken. As each case was reported, the address was scrutinized. If the street

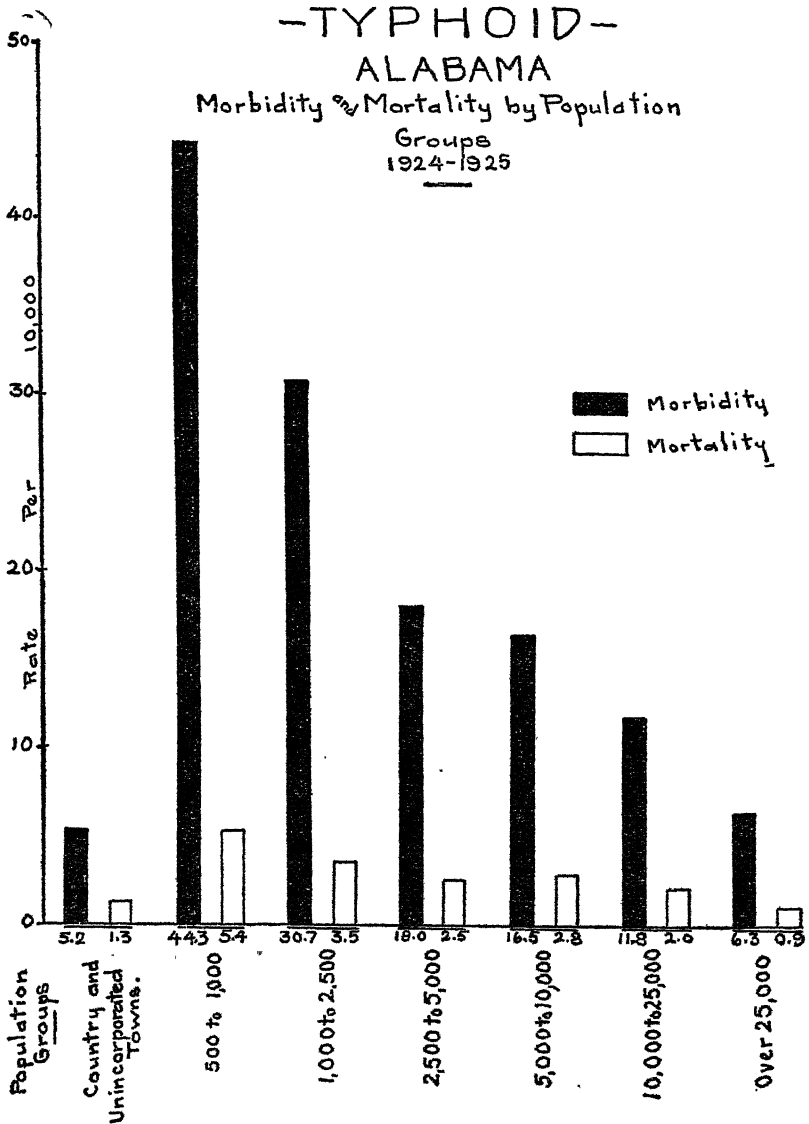


FIG. 1

and number were given, it was assumed that the case properly belonged to the city or town from which reported. If no street address was given, or if the address was given as R. F. D., a letter was addressed to the attending physician requesting the exact location.

Upon receipt of a reply (replies were received in a great majority of cases), the case was then properly recorded on a spot map. The distribution of the cases which occurred during 1925 was then made on a corrected basis. It will be noted that these corrections did not materially alter the distribution of cases for that year (Table 1, column d) as compared with the previous year (column c), which had not been subjected to such special inquiry.

In the allocation of deaths the same sort of error might enter, if a large proportion occurred in hospitals and the death certificate did not give the home address. The examination of a large sample of certificates has convinced us that this error does not play a considerable rôle in this study.

With regard to the second source of error, i. e., incompleteness of reports from the country districts, two lines of evidence are available. The first is the ratio between cases and deaths, bearing in mind that the two sets of reports are collected through independent agencies. The second is the actual comparison of the reporting of physicians who live in country districts with the reporting of those who live in towns.

The ratio of cases to deaths reported in the several groups is as follows:

Group	Number of cases reported to each death
I.....	4.1
II.....	8.3
III.....	8.7
IV.....	7.4
V.....	5.9
VI.....	6.0
VII.....	6.7
Total for State.....	5.5

Judged by this ratio, the reporting of typhoid cases in the country districts and unincorporated towns (Group I) is only about half as complete as in the small incorporated towns (Groups II and III) and two-thirds as complete as in cities (Groups VI and VII). If it be assumed that complete reporting is represented by a ratio of 10 cases to 1 death, and the mean morbidity rate of each group (Table 1, column g) be adjusted on this basis, the corrected morbidity rates would then be as follows:

Group	Adjusted mean morbidity rate
I.....	13.0
II.....	53.4
III.....	35.3
IV.....	24.3
V.....	27.8
VI.....	19.0
VII.....	9.4

It will be seen from these adjusted rates that the order of these corrections for completeness of reporting is not sufficiently large to change the relationships materially. Moreover, the assumption that a uniform fatality rate holds for all groups is not entirely justified.

To check further the completeness of reporting, the records<sup>1</sup> for 1924 and 1925 of a random sample of 436 physicians (about 25 per cent of the active practitioners of the State) were analyzed. They were then grouped according to the place of residence of the physicians as in the previous tabulations. The result was as follows:

Residence in—	Number of physicians	Report cards returned per physician
Group I.....	129	26.1
Group II.....	40	27.5
Group III.....	58	30.9
Group IV.....	49	28.7
Group V.....	34	23.6
Group VI.....	52	25.0
Group VII.....	74	22.9

There is a striking uniformity of response, suggesting that the degree of frequency in reporting depends more upon personal factors than upon the environment in which a physician practices. Physicians living in the country districts report as frequently as those living in the towns and more frequently than those living in the cities.

It appears from these considerations that the differences in the typhoid rate of the various population divisions as set forth in the tables and the graph are significant. The errors involved do not seem to account for more than a small part of these differences.

#### DISCUSSION

Inferences drawn from these differences should have a direct practical bearing in shaping administrative policies directed toward the reduction of the State typhoid rate. Sanitation of the larger cities will have little effect upon the total rate of a State the population of which is largely rural. On the other hand, the population living in the unincorporated towns and country districts have comparative protection by virtue of their very lack of contact with their fellow man. Although comprising 71 per cent of the total population, the people living in the country districts in Alabama contribute only 41 per cent of the annual typhoid-fever toll. The risk of typhoid fever in this part of the population would appear to be

<sup>1</sup> Under the Alabama system of reporting a card is sent to every active physician in the State once each week. He is requested to return the card whether he has a case to report or not, in order that the completeness of the return may be estimated. (See Maxey, K. F.: The Alabama System of Notifiable Disease Reports. Pub. Health Rep., July 4, 1924, pages 1611-1620.)

no greater than that of persons living in the large and relatively large cities.

The most fruitful field for typhoid reduction is the small incorporated town. In Alabama there are 116 towns ranging in population from 500 to 2,500. Though constituting only 7 per cent of the total population of the State they furnish annually 28 per cent of the typhoid fever cases. For persons living in these towns the risk of contracting typhoid fever is excessive, at least four times greater than for residents of the country districts or in the larger cities. Obviously the control measures should be directed primarily to this group.

Some years ago Dr. Allen Freeman called attention to the small town as the neglected unit in sanitation.<sup>2</sup> The rates revealed by these analyses are a reflection of the condition which he then discussed.

Surveys of a number of towns in Alabama are being conducted to determine exactly the *status quo*. Results already obtained emphasize anew the necessity for adequate legislation and administrative machinery to improve systematically the sanitation of every town in the State, a program which has already been largely consummated by one Southern State—North Carolina.

#### CONCLUSIONS

The highest incidence of typhoid fever in Alabama is in the small towns.

The typhoid fever morbidity and mortality rates in the country districts and unincorporated communities of Alabama are less than one-fourth as great as the rates in the small towns and are as low as the rates in the large and relatively well-sanitated cities.

*Acknowledgment.*—The authors wish to acknowledge their grateful appreciation to Dr. W. Thurber Fales, State Registrar, for his valuable assistance in connection with the compilation of statistical material herein contained.

#### WHOLE-TIME COUNTY HEALTH OFFICERS, 1926

The following directory has been compiled from data furnished as of January 1, 1926, by State health officers. Similar directories for 1922, 1923, 1924, and 1925 have been published in the PUBLIC HEALTH REPORTS. The directory for 1925 was issued as Reprint No. 1012.

In the questionnaire sent for the purpose of obtaining the necessary information, a "whole-time" county health officer was defined

<sup>2</sup>Freeman, Allen W.: The Small Town—The Neglected Unit in Sanitary Administration, Southern Medical Journal, Vol. IX (1916), page 128.

as "one who does not engage in the practice of medicine or any other business, but devotes his whole time to official duties."

Directories of State health departments have been published annually by the Public Health Service for the years 1912 to 1925, inclusive. The directory for 1925 was issued as Reprint No. 1043 from the PUBLIC HEALTH REPORTS.

Directories of city health officers have been published annually for the years 1916 to 1925, inclusive, the directory for 1925 being Reprint No. 1025.

Directories of State and city health officers for 1926 will be published later.

State and county	Name of health officer	Post-office address	Official title
<b>Alabama:</b>			
Baldwin.....	G. C. Marlette, M. D.....	Bay Minette.....	County health officer.
Barbour.....	E. M. Moore, M. D.....	Clayton.....	Do.
Calhoun.....	G. A. Cryer, M. D.....	Anniston.....	Do.
Coffee.....	H. P. Rankin, M. D.....	Elba.....	Do.
Colbert.....	W. T. Burkett, M. D.....	Tuscumbia.....	Do.
Covington.....	A. E. Keller, M. D.....	Andalusia.....	Do.
Dallas.....	L. T. Lee, M. D.....	Selma.....	Do.
Escambia.....	R. D. Neal, M. D.....	Brewton.....	Do.
Etowah.....	C. L. Murphree, M. D.....	Gadsden.....	Do.
Franklin.....	L. J. Graves, M. D.....	Russellville.....	Do.
Houston.....	L. R. Poole, M. D.....	Dothan.....	Do.
Jackson.....	H. P. Burbage, M. D.....	Scottsboro.....	Do.
Jefferson.....	J. D. Dowling, M. D.....	Birmingham.....	Do.
Lauderdale.....	W. D. Hubbard, M. D.....	Florence.....	Do.
Lawrence.....	R. E. Harper, M. D.....	Moulton.....	Do.
Lee.....	J. E. Brodie, M. D.....	Opelika.....	Do.
Limestone.....	L. R. Murphree, M. D.....	Athens.....	Do.
Madison.....	W. C. Hatchett, M. D.....	Huntsville.....	Do.
Marengo.....	J. R. Long, M. D.....	Linden.....	Do.
Marshall.....	W. H. Harper, M. D.....	Guntersville.....	Do.
Mobile.....	C. A. Mohr, M. D.....	Mobile.....	Do.
Montgomery.....	J. L. Bowman, M. D.....	Montgomery.....	Do.
Morgan.....	H. C. McRee, M. D.....	Albany.....	Do.
Pike.....	W. H. Abernethy, M. D.....	Troy.....	Do.
Sumter.....	J. S. Hough, M. D.....	Livingston.....	Do.
Talladega.....	J. H. Hill, M. D.....	Talladega.....	Do.
Tuscaloosa.....	A. A. Kirk, M. D.....	Tuscaloosa.....	Do.
Walker.....	A. M. Waldrop, M. D.....	Jasper.....	Do.
<b>Arizona:</b>			
Cochise.....	R. B. Durfee, M. D.....	Bisbee.....	County superintendent of public health.
<b>Arkansas:</b>			
Garland.....	Austin F. Barr, M. D.....	Hot Springs.....	Director.
Jefferson.....	F. Michael Smith, M. D.....	Pine Bluff.....	Do.
Pulaski.....	V. T. Webb, M. D.....	Little Rock.....	Do.
Sebastian (district).....	J. E. Johnson, M. D.....	Fort Smith.....	District health officer.
<b>California:</b>			
Los Angeles.....	J. L. Pomeroy, M. D.....	Los Angeles.....	Health officer.
Monterey.....	R. C. Main, M. D.....	Solinas.....	Do.
Orange.....	V. G. Presson, M. D.....	Santa Ana.....	Do.
San Diego.....	Alex M. Lessem, M. D.....	San Diego.....	Do.
San Joaquin.....	John J. Sippy, M. D.....	Stockton.....	Do.
San Luis Obispo.....	K. H. Sutherland, M. D.....	San Luis Obispo.....	Do.
Santa Barbara.....	A. P. Harrison, M. D.....	Santa Barbara.....	Do.
<b>Colorado:</b>			
Otero.....	Guy A. Ashbaugh, M. D.....	Rocky Ford.....	County health officer.
<b>Florida:</b>			
Polk (Polk County health unit).....	W. M. Bevis, M. D.....	Bartow.....	Do.
<b>Georgia:</b>			
Baker.....	M. A. Fort, M. D.....	Bainbridge.....	Health officer.
Baldwin.....	Sam A. Anderson, M. D.....	Milledgeville.....	Commissioner of health.
Bartow.....	D. H. Monroe, M. D.....	Cartersville.....	Do.
Bibb.....	C. L. Ridley, M. D.....	Macon.....	Health officer.
Clarke.....	J. D. Applewhite, M. D.....	Athens.....	Commissioner of health.
Cobb.....	J. E. Lester, M. D.....	Marietta.....	Do.
Decatur.....	M. A. Fort, M. D.....	Bainbridge.....	Do.
De Kalb.....	J. R. Evans, M. D.....	Decatur.....	Do.
Douglas.....	H. Robinson, M. D.....	Albany.....	Do.

State and county	Name of health officer	Post-office address	Official title
Georgia—Continued.			
Floyd.....	B. V. Elmore, M. D.....	Rome.....	Commissioner of health.
Glynn.....	H. L. Akridge, M. D.....	Brunswick.....	Do.
Grady.....	M. A. Fort, M. D.....	Bainbridge.....	Health officer.
Hall.....	B. D. Blackwelder, M. D.....	Gainesville.....	Commissioner of health.
Laurens.....	O. H. Cheek, M. D.....	Dublin.....	Do.
Lowndes.....	G. T. Crozier, M. D.....	Valdosta.....	Do.
Mitchell.....	C. O. Rainey, M. D.....	Camilla.....	Do.
Richmond.....	L. L. Dozier, M. D.....	Augusta.....	Do.
Sumter.....	W. H. Houston, M. D.....	Americus.....	Do.
Thomas.....	J. W. Wallace, M. D.....	Thomasville.....	Do.
Troup.....	S. C. Rutland, M. D.....	Lagrange.....	Do.
Walker.....	J. H. Hammond, M. D.....	La Fayette.....	Do.
Ware.....	Geo. E. Atwood, M. D.....	Waycross.....	Do.
Illinois:			
Cook.....	Herbert L. Wright, M. D., Ph. G., Dr. P. H.....	Chicago, 737 South Lincoln.....	County health di- rector
Morgan.....	W. H. Newcomb, M. D.....	Jacksonville.....	County health officer.
Sangamon.....	R. V. Brokaw, M. D.....	Springfield.....	City and county health officer.
Iowa:			
Dubuque.....	D. C. Steelsmith, M. D., C. P. H.....	Dubuque.....	Director of health.
Kansas:			
Butler.....	R. J. Cabeen, M. D.....	Eldorado.....	County health officer.
Colfax.....	V. McMullen, M. D.....	Burlington.....	Do.
Ellis.....	Fred C. Cave, M. D.....	Hays.....	Do.
Geary.....	R. B. Stafford, M. D.....	Junction City.....	Do.
Jefferson.....	D. M. Stevens, M. D.....	Oskaloosa.....	Do.
Lyon.....	J. S. Fulton, M. D.....	Emporia.....	Do.
Marion.....	J. H. Saylor, M. D.....	Marion.....	Do.
McPherson.....	L. S. Steadman, M. D.....	McPherson.....	Do.
Ottawa.....	M. O. Nyberg, M. D.....	Minneapolis.....	Do.
Phillips.....	G. D. M. Lambdin, M. D.....	Phillipsburg.....	Do.
Kentucky:			
Boyd.....	R. D. Higgins, M. D.....	Ashland.....	Director of health.
Daviess.....	R. M. Hathaway, M. D.....	Owensboro.....	Do.
Fayette.....	J. S. Chambers, M. D.....	Lexington.....	Do.
Fulton.....	J. C. Morrison, M. D.....	Hickman.....	Do.
Jefferson.....	E. F. Whistler, M. D.....	Louisville, Armory Building.....	County health officer.
Johnson.....	J. P. Wells, M. D.....	Paintsville.....	Director of health.
Mason.....	H. J. Hutchings, M. D.....	Maysville.....	Do.
Scott.....	A. Stewart, M. D.....	Georgetown.....	Do.
Louisiana: <sup>1</sup>			
Caddo.....	W. J. Sandidge, M. D.....	Shreveport.....	Unit director, Parish health officer.
Claiborne.....	John R. Turner, M. D.....	Homer.....	Do.
De Soto.....	R. A. Tharp, M. D.....	Mansfield.....	Do.
La Fourche.....	H. S. Smith, M. D.....	Thibodaux.....	Do.
Natchitoches.....	W. W. Knipmeyer, M. D.....	Natchitoches.....	Do.
Ouachita.....	Paul R. Neal, M. D.....	Monroe.....	Unit director, deputy Parish health officer.
Plaquemines.....	A. B. Jemison, M. D.....	Buras.....	Unit director, Parish health officer.
St. Mary.....	Thos. B. Wilson, M. D.....	Franklin.....	Do.
Tangipahoa.....	T. C. W. Ellis, M. D.....	Amite.....	Do.
Washington.....	John Schreiber, M. D.....	Franklinton.....	Do.
Webster.....	E. B. Godfrey, M. D.....	Minden.....	Do.
Maryland:			
Allegany.....	C. C. McCulloch, M. D.....	Cumberland.....	County health officer.
Baltimore.....	J. S. Bowen, M. D.....	Towson.....	Do.
Calvert.....	I. N. King, M. D.....	Barstow.....	Do.
Carroll.....	W. T. Stone, M. D.....	Westminster.....	Do.
Frederick.....	E. C. Kefauver, M. D.....	Frederick.....	Do.
Montgomery.....	W. T. Pratt, M. D.....	Rockville.....	Do.
Massachusetts:			
Cape Cod Health District.....	A. P. Goff, M. D.....	Hyannis.....	Director, Cape Cod Health Bureau.
Minnesota:			
St. Louis.....	H. G. Lampson, M. D.....	Duluth.....	County health officer.
Mississippi:			
Bolivar.....	R. D. Dedwylder, M. D.....	Cleveland.....	Director of health.
Coahoma.....	E. B. Kirkpatrick, M. D.....	Clarksdale.....	Do.
Forrest.....	W. D. Beacham, M. D.....	Hattiesburg.....	Do.
Harrison.....	C. J. Williams, M. D.....	Gulfport.....	County health officer.
Hancock.....	C. M. Shipp, M. D.....	Bay St. Louis.....	Director of health.
Hinds.....	J. B. Black, M. D., C. F. II.....	Jackson.....	Do.
Jackson.....	W. E. Sharp, M. D.....	Pascagoula.....	Do.
Jones.....	J. M. Kitchin, M. D.....	Laurel.....	Do.
Lee.....			Do.
Leflore.....	C. P. Coogle, M. D.....	Greenwood.....	Do.

<sup>1</sup> Parishes.



State and county	Name of health officer	Post-office address	Official title
<b>Mississippi—Contd.</b>			
Pearl River	W. B. Harrison, M. D.	Poplarville	Director of health.
Sharkey	A. K. Barrier, M. D.	Rolling Fork	Do.
Washington	A. J. Ware, M. D.	Greenville	County health officer.
<b>Missouri:</b>			
Boone	Finis Suggett, M. D.	Columbia	Do.
Dunklin	E. L. Spence, M. D.	Kennett	Do.
Gentry	E. M. Lucke, M. D.	Albany	Do.
Greene	J. W. Williams, jr., M. D.	Springfield	Do.
Jackson	F. G. Crandall, M. D.	Independence	Do.
New Madrid	Wm. N. O'Bannon, M. D.	New Madrid	Do.
Nodaway	C. P. Fryer, M. D., C. P. H.	Maryville	Do.
Pemiscot	W. S. Petty, M. D.	Caruthersville	Do.
Pettis	W. L. Bradford, M. D.	Sedalia	Do.
Polk	G. D. Smith, M. D.	Bolivar	Do.
St. Francois	W. W. Johnston, M. D.	Flat River	Do.
St. Louis	W. F. O'Malley, M. D.	Clayton	Do.
<b>Montana:</b>			
Cascade	T. E. Walker, M. D.		Do.
Lewis and Clark	Arthur Jordan, M. D.	Helena	Do.
Missoula	F. D. Pease, M. D.	Missoula	Do.
<b>New Mexico:</b>			
Bernalillo	J. R. Scott, M. D., P. H. D.	Albuquerque	Do.
Chaves	J. A. Smith, M. D.	Roswell	Do.
Dona Ana	C. W. Gerber, M. D.	Las Cruces	Do.
Eddy	E. I. Vaughn, M. D.	Carlsbad	Do.
McKinley	E. W. Prothro, M. D.	Gallup	Do.
Santa Fe	H. P. Mera, M. D.	Santa Fe	Do.
Union	W. H. Ennels, M. D., C. P. H.	Clayton	Do.
Valencia	G. L. Luckey, M. D.	Los Lunas	Do.
<b>New York:</b>			
Cattaraugus	Stephen A. Douglass, M. D.	Olean	Do.
<b>North Carolina:</b>			
Beaufort	J. W. Williams, M. D.	Washington	Do.
Bertie	J. E. Smith, M. D.	Windsor	Do.
Bladen	W. T. Rmark, M. D.	Elizabethtown	Do.
Brunswick	R. E. Broadway, M. D.	Southport	Do.
Buncombe	G. A. Morgan, M. D.	Asheville	Do.
Cabarrus	S. E. Buchanan, M. D.	Concord	Do.
Columbus	Floyd Johnson, M. D.	Whiteville	Do.
Craven	D. E. Ford, M. D.	New Bern	Do.
Cumberland	J. W. McNeill, M. D.	Fayetteville	Do.
Davidson	G. C. Gambrell, M. D.	Lexington	Do.
Durham	J. H. Epperson, Ph. D.	Durham	Do.
Edgecombe	J. E. Fucker, M. D.	Tarboro	Do.
Forsyth	J. R. Hoge, M. D.	Winston-Salem	Do.
Gaston	J. A. Morris, M. D.	Oxford	Do.
Guilford	B. M. Baile, M. D.	Greensboro	Do.
Halifax	E. W. Larkin, M. D.	Weldon	Do.
Henderson	J. H. Woodcock, M. D.	Hendersonville	Do.
Johnston	C. C. Masser, M. D.	Smithfield	Do.
Lenoir	R. S. McGeachy, M. D.	Kinston	Do.
McKenburg	W. A. McPhaul, M. D.	Charlotte	Do.
New Hanover	J. H. Hamilton, M. D.	Wilmington	Do.
Northampton	Z. P. Mitchell, M. D.	Jackson	Do.
Onslow	D. A. Dees, M. D.	Bayboro	Do.
Pitt	C. L. Outland, M. D.	Greenville	Do.
Robeson	E. R. Hardin, M. D.	Lumberton	Do.
Rowan	C. W. Armstrong, M. D.	Salisbury	Do.
Richmond	A. B. McCreary, M. D.	Rockingham	Do.
Rutherford	J. C. Twitty, M. D.	Rutherfordton	Do.
Sampson	E. T. Hollingsworth, M. D.	Clinton	Do.
Surry	R. M. Lancaster, M. D.	Mount Airy	Do.
Vance	F. R. Harris, M. D.	Henderson	Do.
Wake	A. C. Bulla, M. D.	Raleigh	Do.
Wayne	L. W. Corbett, M. D.	Goldsboro	Do.
Wilkes	J. W. White, M. D.	North Wilkesboro	Do.
Wilson	L. J. Smith, M. D.	Wilson	Do.
<b>Ohio:</b>			
Allen	J. J. Sutter, M. D.	Lima	District health commissioner.
Ashtabula	W. S. Weiss, M. D.	Jefferson	Do.
Athens	J. M. Higgins, M. D.	Athens	Do.
Belmont	F. R. Dew, M. D.	St. Clairsville	Do.
Builer	C. J. Baldrige, M. D.	Hamilton	Do.
Clermont	F. A. Jreton, M. D.	Batavia	Do.
Cinton	W. K. Rubie, M. D.	Wilmington	Do.
Columbiana	C. H. York, M. D.	Lisbon	Do.
Coshocton	D. M. Criswell, M. D.	Coshocton	Do.
Crawford	G. T. Wasson, M. D.	Bucyrus	Do.
Cuyahoga	Robert Lockhart, M. D.	Cleveland	Do.
Delaware	A. J. Pounds, M. D.	Delaware	Do.
Erie	F. M. Houghaling, M. D.	Sandusky	Do.
Fayette	T. F. Myler, M. D.	Washington Court House	Do.

State and county	Name of health officer	Post-office address	Official title
Ohio—Continued.			
Franklin	H. H. Snively, M. D.	Columbus	District health commissioner.
Geauga	Walter Corey, M. D.	Chardon	Do.
Hancock	S. F. Whisler, M. D.	Findlay	Do.
Hocking	W. G. Rhoten, M. D.	Logan	Do.
Huron	B. C. Pilkey, M. D.	Norwalk	Do.
Jefferson	J. P. Young, M. D.	Staubenville	Do.
Hamilton	C. A. Neal, M. D.	Cincinnati	Do.
Lake	E. J. Schwartz, M. D.	Painesville	Do.
Lorain	I. C. Riffin, M. D.	Oberlin	Do.
Lucas	F. F. De Vore, M. D.	Toledo	Do.
Mahoning	J. F. Elder, M. D.	Younstown	Do.
Marion	N. Sifritt, M. D.	Marion	Do.
Meigs	Jane Nye Gulliford, M. D.	Pomeroy	Do.
Mercer	F. E. Ayers, M. D.	Celina	Do.
Miami	P. J. Crawford, M. D.	Troy	Do.
Montgomery	H. H. Pansing, M. D.	Dayton	Do.
Morrow	R. L. Pierce, M. D.	Mount Gilead	Do.
Muskingum	J. M. O'Neal, M. D.	Zanesville	Do.
Perry	F. J. Crosbie, M. D.	New Lexington	Do.
Richland	D. C. Lavender, M. D.	Mansfield	Do.
Ross	G. E. Robbins, M. D.	Chillicothe	Do.
Sandusky	O. H. Thomas, M. D.	Fremont	Do.
Scioto	R. W. DeCrow, M. D.	Wheelerburg	Do.
Seneca	J. J. Heaton, M. D.	Tiffin	Do.
Shelby	M. D. Alles, M. D.	Sidney	Do.
Stark	C. M. Eaters, M. D.	Canton	Do.
Summit	R. H. Markwith, M. D.	Akron	Do.
Trumbull	L. A. Cammell, M. D.	Warren	Do.
Tuscarawas	I. Blickensderfer, M. D.	New Philadelphia	Do.
Union	H. G. Southard, M. D.	Marysville	Do.
Washington	A. G. Sturgiss, M. D.	Marietta	Do.
Wayne	C. D. Barrett, M. D.	Wooster	Do.
Wood	H. J. Powell, M. D.	Bowling Green	Do.
Oklahoma:			
Carter	R. C. Sullivan, M. D.	Ardmore	County superintendent of health.
Le Flore	W. F. Lunsford, M. D.	Poteau	Do.
McCurtain	R. D. Williams, M. D.	Idabel	Do.
Muskogee	J. D. Leonard, M. D.	Muskogee	Do.
Oklahoma	George Hunter, M. D.	Oklahoma City	Do.
Oklmulgee	J. O. Walls, M. D.	Oklmulgee	Do.
Ottawa	F. P. Helm	Miami	Do.
Pittsburg	C. M. Pearce, M. D.	McAlester	Do.
Oregon:			
Clackamas	F. W. Wallace, M. D.	Oregon City	County health officer.
Coos	P. M. Drake, M. D.	Coquille	Do.
Douglas	W. C. Belt, M. D.	Roseburg	Do.
Jackson	V. S. Geary, M. D.	Jacksonville	Do.
Klamath	G. S. Newsom, M. D.	Klamath Falls	Do.
South Carolina:			
Aiken	C. H. Farmer, M. D.	Aiken	Do.
Anderson	E. E. Epling, M. D.	Anderson	Do.
Beaufort	T. R. Meyer, M. D.	Beaufort	Do.
Charleston	Leon Banov, M. D.	Charleston	Do.
Cherokee	W. L. Poole, M. D.	Gaffney	Do.
Colleton	F. L. Echols, M. D.	Walterboro	Do.
Darlington	A. B. Hooton, M. D.	Darlington	Do.
Dillon	C. C. Freed, M. D.	Dillon	Do.
Fairfield	H. T. Kennedy, M. D.	Winnboro	Do.
Georgetown	L. L. Williams, M. D.	Georgetown	Do.
Greenville	Baylis Earle, M. D.	Greenville	Do.
Greenwood	W. L. Martin, M. D.	Greenwood	Do.
Marion	F. N. Andrews, M. D.	Marion	Do.
Newberry	H. G. Callison, M. D.	Newberry	Do.
Orangeburg	G. C. Bolin, M. D.	Orangeburg	Do.
Spartanburg	R. G. Beachley, M. D.	Spartanburg	Do.
South Dakota:			
Brown	George M. Boteler, M. D.	Aberdeen	Director of health.
Pennington	D. K. Jones, M. D.	Rapid City	Do.
Yankton	Thomas F. Ballard, M. D.	Yankton	Do.
Tennessee:			
Blount	K. A. Bryant, M. D.	Maryville	Field director.
Davidson	J. J. Lentz, M. D.	Nashville	County health officer.
Dyer	W. J. Cameron, M. D.	Dyersburg	Do.
Gibson	F. L. Roberts, M. D.	Trenton	Do.
Hamilton	J. W. Dennis, M. D.	Chattanooga	Do.
Montgomery	F. J. Malone, M. D.	Clarksville	Do.
Obion	C. B. A. Turner, M. D.	Union City	Do.
Roeane	J. C. Fly, M. D.	Kingsport	Do.
Rutherford	H. S. Mustard, M. D.	Murfreesboro	Do.
Sevier	J. A. Crabtree, M. D.	Sevierville	Field director.
Weakley	S. S. Moody, M. D.	Dresden	County health officer.
Williamson	L. M. Graves, M. D.	Franklin	Do.

State and county	Name of health officer	Post-office address	Official title
<b>Texas:</b>			
Cameron.....	Joe E. Tyson, M. D.....	San Benito.....	County health officer.
Hidalgo.....	J. R. Mahone, M. D.....	Pharr.....	Do.
Jefferson.....	J. D. Blevins, M. D.....	Beaumont.....	Do.
McLennan.....	R. McCormick, M. D.....	Waco.....	Do.
Tarrant.....	Frank P. Smith, M. D.....	Fort Worth.....	Do.
<b>Utah:</b>			
Davis.....	Sumner Gleason, M. D.....	Kaysville.....	Do.
Weber.....	Earl Belnap, M. D.....	Ogden.....	Do.
<b>Virginia:</b>			
Accomac.....	R. P. Cook, M. D.....	Accomac.....	Do.
Albemarle.....	G. B. Young, M. D.....	Charlottesville.....	Do.
Arlington.....	P. M. Chichester, M. D.....	Clarendon.....	Do.
Augusta.....	H. M. Wallace, M. D.....	Staunton.....	Do.
Brunswick.....	L. H. Lewis, M. D.....	Lawrenceville.....	Do.
Fairfax.....	W. P. Caton, M. D.....	Fairfax.....	Do.
Halifax.....	Kolbe Curtice.....	South Boston.....	Do.
Henrico.....	G. H. Musgrave, M. D.....	Richmond.....	Do.
Isle of Wight.....	G. F. McGinnis, M. D.....	Smithfield.....	Do.
James City.....	J. H. Crouch, M. D.....	Williamsburg.....	Do.
Namsonomond.....	C. F. Moriarty, M. D.....	Suffolk.....	Do.
Northampton.....	P. H. Smith, M. D.....	Eastville.....	Do.
Sussex.....	David B. Lepper, M. D.....	Sussex Court House.....	Do.
Wise.....	W. R. Culbertson, M. D.....	Norton.....	Do.
<b>Washington:</b>			
Chelan.....	Paul L. West, M. D.....	Wenatchee.....	Do.
King.....	Geo. H. T. Sparling, M. D.....	Seattle.....	Do.
Walla Walla.....	Oliver Morehead, M. D.....	Walla Walla.....	Do.
Yakima.....	H. H. Smith, M. D.....	Yakima.....	Do.
<b>West Virginia:</b>			
Gilmer.....	H. C. Douglass, M. D.....	Glenville.....	Do.
Hancock.....	John B. Ahouse, M. D.....	New Cumberland.....	Do.
Harrison.....	V. A. Selby, M. D.....	Clarksburg.....	Do.
Logan.....	R. S. Van Metre, M. D.....	Logan.....	Do.
Marion.....	Randolph McCutcheon, M. D.....	Fairmont.....	Do.
Marshall.....	C. C. Hedges, M. D.....	Moundsville.....	Do.
Freston.....	John Thames, M. D.....	Kingwood.....	Do.
Roane.....	F. C. Makepeace, M. D.....	Spencer.....	Do.
<b>Wyoming:</b>			
Natrona.....	H. Garst, M. D.....	Casper.....	Director of health.

## SMALLPOX VACCINATIONS IN LOS ANGELES, CALIF.

The following note is taken from the Weekly Bulletin for March 27, 1926, issued by the California State Board of Health:

The Los Angeles City Department of Health advises that more than 300,000 individuals have been vaccinated against smallpox by the department's staff during the period dating from January 1, 1926 to March 6, 1926. Of these, at least 120,000 are pupils in the public schools, 65,000 are employees in the industries, and 5,000 are inmates of institutions. Many thousands of vaccinations have also been done by private practitioners of medicine.

## PUBLIC HEALTH ENGINEERING ABSTRACTS

**Housing Conditions in Relation to Malaria in the United States.** J. A. LePrince, United States Public Health Service Bulletin No. 156, 1925, pp. 85-90. (Abstracted by J. A. LePrince.)

This is a summary of some decidedly important investigations now being conducted by Dr. C. P. Coogle, United States Public Health Service, in the Mississippi Delta.

For a number of years the plantation and farm owners of the most malarious sections of the United States have had the idea that it is

not possible or practicable to keep negro farm tenant homes effectively screened at a reasonable cost. Doctor Coogle proves that such is not the case to-day, and that in most instances they can be induced to take better care of the screen of their screened homes than is the case with white farm tenants. In a period of 12 months in 1924 a test of 20 homes with 54 doors and 57 windows was made. Only one of the 111 screen panels were torn, and that one was repaired promptly by the colored house tenant. The reasons for this success, as well as of cause of previous failure to keep screening effective, are given. The writer indicates that there is a "right way" as well as a "wrong way" to go about the screening of farm homes, and that going about it the wrong way is to a large extent responsible for the continuous high malaria prevalence rates in rural districts of the United States.

**ABSTRACTOR'S NOTE.**—It is thought that possibly the above will apply to a number of other countries as well as to the United States.

The continuation of Doctor Coogle's studies in 1926 gave equally good results on 20 additional farm tenant homes. Nineteen of the twenty colored families kept the door and window screens without a rip or defect for a period of 24 months, and yet it is customary not to screen homes of colored farm tenants because "they can not be induced to take proper care of the screen."

**Applying Oil Under Pressure as a Mosquito Larvicide.** T. H. D. Griffiths, United States Public Health Service Bulletin No. 156, 1925, pp. 15–22. (Abstracted by J. A. LePrince.)

The author describes an economical means of applying oil as a larvicide to the *Anopheles*-producing portions of large impounded water projects. A detailed description of the apparatus he devised, together with illustrations, is given. The author stresses the fact that flotage is the most important factor in *Anopheles* production in newly impounded waters. He thinks more intelligent and reliable labor is needed in applying Paris green in connection with impounded water *Anopheles*-control measures than is the case where oil is used as a larvicide.

With the apparatus described, it was observed that a gentle breeze would carry the mistlike oil spray 200 feet and give a complete oil film on the water surface. The apparatus will spray 25 gallons of oil per hour of continuous spraying. The author gives a description of the successful application of this oil-spraying device at a lake near Newton, Ala., at the new large lake at Muscle Shoals, and at Mitchell Dam Reservoir in Alabama.

**Larvicides.** C. H. Kibbey, United States Public Health Service Bulletin No. 156, 1925, pp. 141–142. (Abstracted by J. A. LePrince.)

The author calls attention to improper use and to wastage in the application of larvicides. He thinks that the kerosene or lighter oils used to dilute heavier crude oil (to be used as larvicides) would be just as effective if used in the same quantity without being added to the crude oil. Gasoline is the most strongly larvicidal of all the petroleum products.

For a period of years he has used a motor boat to destroy larvæ of *A. quadrimaculatus* by wave action on a large lake, and the third boat is now being used, two others having been worn out in this service. The malaria situation at the mine village near the lake made it necessary to close down the mine or solve the malaria problem economically. He states: "The fellow who believes he has a problem in malaria control which can not be solved is probably correct in so far as he is concerned, but he need look no further than under his own hat for the reason."

**Dispersal of Male Anopheles from Breeding Places.** Bruce Mayne, Associate Sanitarian, United States Public Health Service. Public Health Bulletin No. 156, p. 107. (Abstracted by W. H. W. Komp.)

An overlapping of broods of *Anopheles* occurs in nature, as all the eggs of one female are not laid at one time, and the larvæ from one batch of eggs do not develop with the same rapidity. The majority of eggs laid develop into males, a provision of nature to insure the fertilization of the female.

The appearance of the male denotes the presence of water from which it has just emerged, or where egg-laying is going on. The great discrepancy noted in the numbers of males emerging and the numbers found in resting places may possibly be explained on the basis of food requirements. The finding of males in spring is a sign that new emergences are taking place, as the male does not survive the winter. The earliest record for such males in the latitude of central Mississippi is given as March 14. The author gives as his impression that the predominance of males is an indication of near-by producing area, their abundance being in direct ratio to the nearness of a body of water. In midseason the male is seldom found in houses, but frequents woods and streams.

A simple way of determining the efficacy of control measures is suggested in looking for male mosquitoes both before and after such measures have been instituted. If there is a sharp reduction in males, the work may be assumed to be progressing satisfactorily.

**ABSTRACTOR'S NOTE.**—In southern Louisiana during 1923, in a rice-field region with high *Anopheles* production, of 2,667 *Anopheles* mosquitoes bred to maturity in the laboratory from field collections, 1,552 were females, and 1,125 were males. Barber, Komp, and Hayne (Pub. Health Rep., vol. 40, No. 3) have shown that the proportions of the sexes of *Anopheles* found in different resting places

is not dependent on nearness to the breeding place, but on the accessibility of a blood supply. The bloodless shelters (hollow trees, empty houses, etc.) show the largest percentage of males.

**Observations on the Relative Importance of *A. Quadrimaculatus*, *A. Crucians*, and *A. Punctipennis* in Transmitting Malaria.** Bruce Mayne, Associate Sanitarian, United States Public Health Service, Public Health Bulletin No. 156, p. 23. (Abstracted by W. H. W. Komp.)

The following conclusions are drawn from the work of various observers: The malaria parasite in one or other of its forms is found naturally in some species and not in others; it is not found constantly in those species which harbor it, although the human index may be constant; although probably all species of *Anopheles* can be infected with malaria under laboratory conditions, not all become infected to the same degree. With these points in mind, the three common anophelines of the southern United States were examined. *A. quadrimaculatus* is recognized as being the chief carrier of malaria in the South, and, on epidemiological grounds as well as on the results of dissections of caught imagoes, it seems evident that neither *Anopheles crucians* nor *Anopheles punctipennis* is likely to be a dangerous natural carrier, although all three species seem to be equally susceptible to infection under laboratory conditions.

**Effect of Temperature on Aquatic Life in Cisterns.** F. R. Shaw, United States Public Health Service Bulletin No. 156, 1925, pp. 65-71. (Abstracted by J. A. LePrince.)

The title includes larvæ of mosquitoes. The investigations were made to determine practical data relative to *Stegomyia* control in Louisiana. In the United States the wooden "above-ground" rain-water cistern is being rapidly replaced by galvanized iron above-ground cisterns. Top minnows live in wooden cisterns and generally keep them free from mosquito larvæ, but temperatures of water in metallic cisterns often become too high to support the natural enemies of mosquito larvæ. This comparative relation of air and water temperatures is discussed together with effect produced by painting the metallic cistern.

**The Uniform System of Milk Inspection.** J. W. Brittlebank, Manchester, England, Journal Royal Sanitary Institute, vol. 46, No. 8, January, 1926, pp. 372-378. (Abstracted by J. F. Miller.)

Success in carrying out programs of uniform milk inspection has suffered most in the past from the many opinions expressed and the variety of methods suggested for dealing with such a complicated question. Many advisors have not considered that there is a commercial problem as well as a sanitary problem. The real improvement must come from within the trade itself.

On many farms the buildings are dark, poorly ventilated, and overcrowded. Under these conditions it is impossible to produce clean

milk or to prevent disease. These conditions should be improved, but action should not be too drastic on account of limited financial resources. A careful survey should be made and all necessary improvements recorded and a plan should be devised for a gradual process of reconstruction to extend over a period of 10 years, so that at the end of that period all cow sheds will have been reconstructed.

All producers should be licensed, and license should be refused on those farms where reasonably clean milk can not be produced until improvements have been made. All farms should be classified into three groups, such as Grade A, Grade B, and Grade C.

In Grade A would be placed all farms reported satisfactory regarding the following conditions: (1) The health of the cows; (2) the management; (3) the methods of milking; (4) satisfactory conditions for cooling; and (5) proper provisions for the cleaning of all milk vessels.

In Grade B would be those farms that do not meet the requirements for Grade A, but milk from these farms should not be used for human consumption unless rendered safe by pasteurization.

Grade C would include those farms on which it is impossible to produce reasonably clean milk. These farms should not be licensed until conditions had improved and they were able to comply with regulations for B or A.

Tuberculous infection in milk must be prevented from reaching the consumer and pasteurization is used only as an expedient.

In each county a whole-time supervising officer (a veterinarian) should be appointed and the inspection work carried out by veterinary practitioners acting under his supervision.

Milk distribution should be confined to bottles, and only those distributors should be licensed who are provided with proper buildings and apparatus for cleaning and sterilizing bottles.

**Milk and Pasteurization.** H. Whitehead, M. D., *Journal Royal Sanitary Institute*, vol. 46, No. 6, November, 1925, pp. 247-255. (Abstracted by D. E. Kepner.)

This article treats at length the various sources of contamination in milk, and presents pasteurization as the only feasible method for safeguarding the milk supply. The physical, chemical, biochemical, and bacteriological effects of pasteurization are given, and also statistics indicating a reduction in the death rate from diarrhea and in infant mortality in New York City since it was introduced. The author urges pasteurization because it destroys tubercle bacilli and other pathogens, and because a pure, safe, continuous supply of raw milk can not be produced.

## COURT DECISION RELATING TO PUBLIC HEALTH

*Issuance of permit to conduct X-ray laboratory compelled.*—(New York Court of Appeals; *Sausser v. Department of Health of City of New York*, 150 N. E. 603; decided January 12, 1926.) Section 107 of the Sanitary Code of New York City provided as follows:

No person shall maintain, operate, or conduct an X-ray laboratory \* \* \* wherein radiographs are taken, diagnoses made or human beings examined or treated by X-rays, without a permit therefor issued by the board of health, or otherwise than in accordance with the terms of said permit and with the regulations of the said board.

Supplementing this section of the Sanitary Code was a regulation of the board of health reading as follows:

Every X-ray laboratory shall at all times be in charge and under the direction of a duly licensed physician or other person whose knowledge, experience and qualifications to operate and use an X-ray machine are satisfactory to the health department.

The petitioner, a chiropractor, made an application for a permit under the above regulations. He claimed that the only operations which he desired to conduct were those of taking radiographs and not those of making diagnoses or treating patients. The petitioner's experience and skill as an X-ray operator were conceded by the health department, but his application was denied, the department proceeding on the theory that the petitioner proposed to diagnose and treat diseases of the spine and that his status as a chiropractor was not recognized as giving him any standing in the medical profession or any qualifications for diagnosing and treating diseases. The court, however, held this theory to be entirely inapplicable as a reason for denying the petitioner's application, and ordered that a permit be issued to him. The following is a paragraph from the court's opinion:

It rather seems to be the case that the authorities and the courts have so concentrated their vision upon the fact that the petitioner is a chiropractor of unrecognized standing in the medical profession that they have inadvertently overlooked the other fact that he is not urging his right to a limited permit because he is a chiropractor, but simply because he is a concededly experienced and skilled X-ray photographer, and therefore qualified as that "other person" mentioned in the Sanitary Code to take radiographs. The respondent could not arbitrarily reject his application.

In view of this decision, the New York City Board of Health on February 6, 1926, amended the regulation in question to read as follows:

Every X-ray laboratory shall at all times be in charge of and under the direction of a duly licensed physician or other person who is licensed under the laws of this State to diagnose and treat disease and whose knowledge, experience and qualification to use an X-ray machine are satisfactory to the health department.



## SOME PUBLICATIONS SUITABLE FOR GENERAL DISTRIBUTION

There is given below a list of some nontechnical publications issued by the Bureau of the Public Health Service, covering a wide variety of subjects and suitable for general distribution.

The "Keep Well" publications constitute a series of small pamphlets which present important health facts in popular form.

The most important articles that appear each week in Public Health Reports are reprinted in pamphlet form, making possible a wider and more economical distribution of articles that are of interest to health workers, sanitarians, and the general public.

The Public Health Bulletins have proved especially valuable for general distribution in connection with campaigns for health improvement, and are useful to health officers as an aid to the solution of many local health problems.

Those publications not marked with an asterisk (\*) are available for free distribution and, as long as the supply lasts, may be obtained by addressing the Surgeon General, United States Public Health Service, Washington, D. C. Those publications marked with an asterisk are not available for free distribution, but may be purchased from the Superintendent of Documents, Government Printing Office, Washington, D. C., *at the prices noted*. (Send no remittances to the Public Health Service.)

### Keep Well Series

- \*1. The Road to Health. Concise Directions for Keeping Well—Table of Average Weights for Men and Women. 1919. 16 pages. 5 cents.
- \*3. How to Avoid Tuberculosis. 1919. 7 pages. 5 cents.
- \*4. Diphtheria. How to Recognize it, Keep from Catching it, and Treat Those Who do Catch it. 1919. 15 pages. 5 cents.
- \*5. The Safe Vacation. Selection of a Place to go and what to do in Case of Sudden Accident or Illness. 1919. 32 pages. 5 cents.
- 6. Cancer Facts Which Every Adult Should Know. 1919. 30 pages.
- \*7. Vaccination: An Excellent Form of Health Insurance. 1919. 8 pages. 5 cents.
- \*8. Motherhood: Helpful Advice to the Expectant Mother. 1919. 7 pages.
- \*10. Bottle Feeding for Babies. Concise Guide for Mothers. 1919. 9 pages. 5 cents.
- \*12. Flat Foot and other Foot Troubles. 1920. 16 pages. 5 cents.
- \*13. Good Teeth. 1921. 16 pages. 5 cents.

### Supplements to the Public Health Reports

- \*2. Indoor Tropics. The Injurious Effect of Overheated Dwellings, Schools, etc. By J. M. Eager. 1913. 8 pages. 5 cents.
- \*3. Tuberculosis: Its Predisposing Causes. By F. C. Smith. 1913. 7 pages. 5 cents.
- 8. Trachoma: Its Nature and Prevention. By John McMullen. 1913. (Revised 1923.) 6 pages.

11. What the Farmer Can Do to Prevent Malaria. By R. H. von Emdorf. 1914. 6 pages.
16. The Summer Care of Infants. By W. C. Rucker and C. C. Pierce. 1914. 15 pages.
18. Malaria: Lessons on Its Cause and Prevention (for use in schools). By H. R. Carter. 1914. 20 pages; 4 plates.
- \*21. Scarlet Fever: Prevention and Control. By J. W. Schereschewsky. 1914. (Revised 1922.) 18 pages. 5 cents.
- \*24. Exercise and Health. By F. C. Smith. 1915. 7 pages. 5 cents.
- \*29. The Transmission of Disease by Flies. By Ernest A. Sweet. 1916. 20 pages; 2 plates. (Revised 1922.) 5 cents.
30. Common Colds. By W. C. Rucker. 1917. 4 pages.
31. Safe Milk: An Important Food Problem. By Ernest A. Sweet. 1917. 24 pages.

#### Public Health Bulletins

- \*35. The Relation of Climate to the Treatment of Pulmonary Tuberculosis. By F. C. Smith. 1910. 17 pages. (Revised edition.) 5 cents.
37. The Sanitary Privy: Its Purpose and Construction. By C. W. Stiles. 1910. 24 pages; 12 figures.
58. Open-air Schools for the Cure and Prevention of Tuberculosis Among Children. By B. S. Warren. 1912. 20 pages.
68. Safe Disposal of Human Excreta at Unsewered Homes. By L. L. Lumsden, C. W. Stiles, and A. W. Freeman. 1915. 28 pages.
69. Typhoid Fever: Its Causation and Prevention. By L. L. Lumsden. 1915. 22 pages.
70. Good Water for Farm Homes. By A. W. Freeman. 1915. 16 pages.
89. A Sanitary Privy System for Unsewered Towns and Villages. By L. L. Lumsden. 1917. 23 pages.
- \*101. Studies of Methods for the Treatment and Disposal of Sewage: Treatment of Sewage from Single Houses and Small Communities. By Leslie C. Frank and C. P. Rynus. 1919. 117 pages. 25 cents.
- \*102. A Home-Made Milk Refrigerator. Simple Method of Constructing a Satisfactory Refrigerator with Materials Usually on Hand. By C. Bolduan. 1919. 1 page; 2 plates. 5 cents.
- \*103. The Rat: Arguments for Elimination and Methods for Destruction. 1919. 12 pages. 5 cents.
106. Comparison of an Eight-Hour Plant and a Ten-Hour Plant. Studies in Industrial Physiology: Fatigue in Relation to Working Capacity. By Josephine Goldmark, Mary D. Hopkins, Philip S. Florence, and Frederic S. Lee. 1920. 213 pages. 25 cents.
110. Synopsis of Child Hygiene Laws of the Several States, Including School Medical-Inspection Laws. By Taliaferro Clark and Selwyn D. Collins. 1921. 58 pages. (Revised May, 1925.)
112. Report on Oregon State Survey of Mental Defects, Delinquency, and Dependency. By C. L. Carlisle. 1921. 79 pages.
114. Top Minnows in Relation to Malaria Control. Notes on Habits and Distribution. By S. F. Hildebrand. 1921. 34 pages.
- \*116. Lead Poisoning in the Pottery Trades. By B. J. Newman, W. J. McCounell, O. M. Spencer, and F. M. Phillips. 1921. 223 pages. 35 cents.
121. Rodent Infestation and Rat-Proofing Conditions in Massachusetts Seacoast Cities, New York, and Baltimore. By L. L. Williams, E. C. Sullivan, and A. F. Allen. 1922. 38 pages.
- \*127. The Epidemiology of Botulism. By J. C. Geiger, K. F. Meyer, and E. C. Dickson. 1922. 119 pages. 15 cents.

- \*129. Communicable Diseases and Travel. By Thomas R. Crowder, 1922. 62 pages. 10 cents.
- \*131. Section No. 1 of General Report on Ohio River Investigation. A Study of Pollution and Natural Purification of the Ohio River. Plankton and Related Organisms. By W. C. Purdy. 1923. 78 pages. 15 cents.
- 132. Studies of 15 Representative Sewage Plants in the United States. By E. J. Theriault and H. H. Wagenhals. 1923. 260 pages.
- \*134. The Campaign Against Malnutrition. 1923. 37 pages. 5 cents.
- 135. Railroad Malaria Surveys. 1922. The Missouri Pacific Railroad. By A. W. Fuchs. 1923. 36 pages.
- \*136. Report of the Committee on Municipal Health Department Practice, of the American Public Health Association. 1923. 468 pages. 50 cents.
- \*138. Tuberculosis Survey of the Island of Porto Rico, October 11, 1922, to April 18, 1923. By J. G. Townsend. 1923. 98 pages. 35 cents.
- \*150. Carbon-Monoxide Literature. By R. R. Sayers and Sara J. Davenport. April, 1925. 54 pages. 10 cents.
- 152. A Study of Courses in Health Education. By Myra Hulst Harman and Taliaferro Clark. April, 1925. 53 pages.
- 153. A Study of the Top Minnow *Gambusia Holbrooki* in its Relation to Mosquito Control. By Samuel F. Hildebrand. May, 1925. 136 pages.

#### Reprints from Public Health Reports

- 100. Whooping Cough: Its Nature and Prevention. By W. C. Rucker. 1912. 7 pages. (Revised 1922.)
- \*105. Antimalarial Measures for Farm Houses and Plantations. By H. R. Carter. 1912. 8 pages. 5 cents.
- \*122. Rat Proofing: Construction or Repair of Dwellings or Other Buildings. By French Simpson. 1913. 11 pages; 10 plates. 5 cents.
- \*138. A New Design for a Sanitary Pail. By Victor G. Heiser. 1913. 2 pages; 1 plate. 5 cents.
- 167. Relative Efficiency of Rat Traps: Trap which Proved Most Effective in Manila. By Victor G. Heiser. 1914. 2 pages.
- \*170. Prevention of Malaria. How to Screen the Home. By R. H. von Ezdorf. 1914. 6 pages. 5 cents.
- 183. Screening as an Antimalarial Measure. By H. R. Carter. 1914. 12 pages.
- \*187. Prevention of Typhus Fever. With Especial Reference to Delousing. By Joseph Goldberger and M. H. Neill. 1914. 14 pages. 5 cents.
- 224. Hookworm Disease: Oil of *Chenopodium* Treatment. By M. G. Motter. 1914. 4 pages.
- \*225. The Chemical Disinfection of Water. By Earle B. Phelps. 1914. 10 pages. 5 cents.
- 256. The Limitations to Self-Medication. Uses and Abuses of Proprietary Preparations and Household Remedies. By Martin I. Wilbert. 1915. 6 pages.
- 258. Malaria Control: Drainage as an Antimalarial Measure. By J. A. A. Le Prince. 1915. 11 pages.
- 260. Control of Malaria: Oiling as an Antimosquito Measure. By J. A. A. Le Prince. 1915. 12 pages.
- \*349. Hay Fever and Its Prevention. By W. Scheppegegrill. 1916. 12 pages; 6 plates. 10 cents.

- \*377. Mental Status of Rural School Children: Sanitary Survey in New Castle County, Del.—with a description of the tests. By E. H. Mullan. The Mental Status of Rural School Children of Porter County, Ind. By Taliaferro Clark and W. L. Treadway. 1916. 30 pages. 5 cents.
- \*387. Climate and Tuberculosis: Relation of Climate to Recovery. By John W. Trask. 1917. 8 pages. 5 cents.
- 456. The Application of Ozone to the Purification of Swimming Pools. By Wallace A. Manheimer. 1918. 8 pages.
- 461. Pellagra: Its Nature and Prevention. By Joseph Goldberger. 1918. (Revised 1921.) 8 pages.
- \*504. The Treatment of Sewage from Single Houses and Small Communities. By Earle B. Phelps. 1919. 6 pages; 2 plates. 5 cents.
- \*527. Fishes in Relation to Mosquito Control in Ponds. By Samuel F. Hildebrand. 1919. 15 pages; 6 plates. (Revised 1922.) 10 cents.
- 532. A Disposal Station for a Can Privy System. By E. B. Johnson. 1919. 6 pages; 2 plates.
- \*545. The Treatment of Hay Fever. By W. Scheppegegrell. 1919. 9 pages; 2 plates. 5 cents.
- 552. The Malaria Problem in the South. By H. R. Carter. 1919. 11 pages.
- \*554. School Medical Inspection. By Taliaferro Clark. 1919. 6 pages. 5 cents.
- 584. Ivy and Sumac Poisoning. By E. A. Sweet and C. V. Grant. 1920. 16 pages; 2 plates. 5 cents.
- \*588. Dried Milk Powder in Infant Feeding. By W. H. Price. 1920. 20 pages. 5 cents.
- \*595. What Can a Community Afford to Pay to Rid Itself of Malaria? By L. M. Fisher. 1920. 5 pages. 5 cents.
- \*622. Children's Teeth, a Community Responsibility. By Taliaferro Clark and H. B. Butler. 1920. 18 pages; 1 plate. 5 cents.
- 625. Sanitary Disposal of Sewage Through a Septic Tank: Simple Construction and Inexpensive Operation for Isolated Dwellings. By H. R. Crohurst. 1920. 8 pages.
- 626. The Bedbug: Relation to Public Health, Habits, Life History, Methods of Control. 1920. 8 pages.
- 645. The Fate of the First Molar. By H. B. Butler. 1921. 6 pages.
- 654. Nutrition in Childhood. By Taliaferro Clark. 1921. 10 pages. (Revised 1922.)
- 655. Guide to Proper Rat-Proofing of Buildings. By C. E. Hauer. 1921. 13 pages.
- \*661. Evolution and Organization of the Public Health Service. 1921. 12 pages. 5 cents.
- 672. The Standard Treatment for Malaria. By C. C. Bass. 1921. 4 pages.
- \*674. Sickness Among School Children: Loss of Time from School Among 6,130 School Children in 13 Localities in Missouri. By S. D. Collins. 1921. 11 pages. 5 cents.
- 682. The Work of the Public Health Service in the Care of Disabled Veterans of the World War. By H. S. Cumming. 1921. 10 pages.
- 683. School Health Supervision in Minneapolis, Minn. By Taliaferro Clark. 1921. 35 pages.
- \*686. Essentials of Smallpox Vaccination. By J. P. Leake and J. N. Force. 1921. 5 pages. 5 cents.
- \*694. Carbon Monoxide Poisoning in Closed Garages. 1921. 6 pages. 5 cents.
- 698. Diphtheria Immunization. 1921. (Revised 1924.) 6 pages.

707. Good Teeth: The Importance of Good Teeth and the Prevention of Decay. 1921. 10 pages.
727. The Care of Your Baby. 1922. 40 pages.
- \*742. Correcting Physical Defects in School Children. 1922. 16 pages. 5 cents.
750. Heights and Weights of School Children. By Taliaferro Clark, Edgar Sydenstricker, and S. D. Collins. 1922. 22 pages.
753. Adenoids. What They Are and How to Treat Them. 1922. 2 pages; 1 plate.
- \*754. The Delinquent. By Frank E. Leslie. 1922. 10 pages. 5 cents.
778. Diphtheria: Its Prevention and Control. By J. W. Schereschewsky. (Revised edition of Supplement No. 14.) 1922.
- \*779. The Posture of School Children in Relation to Nutrition, Physical Defects, School Grade, and Physical Training. By E. Blanche Sterling. 1922. 6 pages. 5 cents.
780. Measles: An Important Disease from the Public Health Standpoint. By W. C. Rucker. (Revised edition of Supplement No. 1.) 1922.
783. The School Nurse: Her Duties and Responsibilities. By Taliaferro Clark. 1922.
- \*789. Dried Milk Powder in Infant Feeding. By Taliaferro Clark and S. D. Collins. 1922. 5 cents.
- \*793. School Absence of Boys and Girls. By Selwyn D. Collins. October 27, 1922. 5 pages. 5 cents.
798. Nutrition and Education. By E. Blanche Sterling. November 10, 1922. 10 pages.
809. Weight and Height as an Index of Nutrition. By Taliaferro Clark, Edgar Sydenstricker, and Selwyn D. Collins. January 12, 1923. 22 pages.
816. Health Scoring of School Children. By Taliaferro Clark and Edith B. Lowry. February 16, 1923. 12 pages.
- \*819. The Trachoma Problem in the State of Minnesota. By Taliaferro Clark. March 2, 1923. 21 pages. 5 cents.
821. Changes in a Small Town Brought About by the Health Department. By B. B. Bagby. March 9, 1923. 4 pages.
825. Schick Tests and Immunization Against Diphtheria in the Eighth Sanitary District of Vermont. By C. W. Kidder. March 30, 1923. 4 pages.
- \*829. Tuberculosis: Its Predisposing Causes. By F. C. Smith. April 23, 1923. 8 pages. 5 cents.
- \*832. The Prevention of Simple Goiter. By O. P. Kimball; M. D. April 27, 1923. 11 pages. 5 cents.
840. The Physical Care of Rural School Children. By Taliaferro Clark. June 1, 1923. 12 pages.
- \*842. Indices of Nutrition. Application of certain standards of nutrition to 506 native white children without physical defects and with "good" or "excellent" nutrition as judged by clinical evidence. By Taliaferro Clark, Edgar Sydenstricker, and Selwyn D. Collins. June 8, 1923. 35 pages. 5 cents.
- \*850. The National Health Council as an Aid to Organized Health Agencies. July 6, 1923. 8 pages. 5 cents.
856. Dengue Fever: Etiology, Epidemiology, Transmission, etc. By C. Armstrong. August 3, 1923. 35 pages.
- \*864. Automobile Cost in Rural Health Work. Report on operation of automobiles in cooperative rural health work in Virginia. By H. McG. Robertson. August 31, 1923. 5 pages. 5 cents.

867. Application of Partial Correlation to a Health Problem. By Frank M Phillips and Faye Hollis Roberts. September 14, 1923. 13 pages.
- \*869. Vaccination Technique and Certification: An Experiment in Making Vaccination and Insurance Against Delay as well as a Protection Against Disease. By S. B. Grubbs. September 21, 1923. 6 pages. 5 cents.
- \*873. Health Conditions Among Chemical Workers with Respect to Earnings. By Frank M. Phillips, Ph. D., and Gertrude A. Sager, M. A. October 5, 1923. 4 pages. 5 cents.
- \*874. Pellagra Prevention by Diet among Institutional Inmates. By Joseph Goldberger, C. H. Waring, and W. F. Tanner. October 12, 1923. 10 pages. 5 cents.
877. Results in a Three-Year Trachoma Campaign Begun in Knott County, Ky., in 1913, as Shown by a Survey Made in the Same Locality 10 Years Later. By John McMullen. October 26, 1923. 6 pages.
878. The Spleen Rate of School Boys in the Mississippi Delta. By K. F. Maxcy and C. P. Coogle. October 26, 1923. 8 pages.
882. Fundamentals of Rural Health Work. By W. F. Draper. November 16, 1923. 8 pages.
884. Collection of Morbidity Data and Other Sanitary Information by the United States Public Health Service. By Brock C. Hampton. November 30, 1923. 16 pages.
- \*890. The Program for Oral Hygiene in the Public Schools of Minneapolis, Minn. By F. Denton White, D. D. S. December 21, 1923. 6 pages. 5 cents.
893. Methods of Administering Iodine for Prophylaxis of Endemic Goiter. By Robert Olsen. January 11, 1924. 11 pages. 5 cents.
- \*895. A study of the Treatment and Prevention of Pellagra. By Joseph Goldberger and W. F. Tanner. January 18, 1924. 21 pages. 5 cents.
- \*896. The Importance of Our Knowledge of Thyroid Physiology in the Control of Thyroid Diseases. By Taliaferro Clark. January 18, 1924. 4 pages. 5 cents.
901. Is the Prophylactic Use of Diphtheria Antitoxin Justified? By James A. Doull and Roy P. Sandidge. February 15, 1924. 12 pages.
- \*905. Factors in the Mental Health of Girls of Foreign Parentage. A study of 210 girls of foreign parentage who received advice and assistance from a social agency, 1919-1923. By Mary C. Jarrett. March 7, 1924. 26 pages. 5 cents.
906. Malta Fever. Cattle suggested as a possible source of infection, following a serological study of human serums. By Alice C. Evans. March 14, 1924. 18 pages.
- \*907. The New Baldwin-Wood Weight-Height-Age-Tables as an Index of Nutrition. By Taliaferro Clark, Edgar Sydenstricker, and Selwyn D. Collins. March 14, 1924. 8 pages. 5 cents.
908. Absenteeism Among White and Negro School Children in Cleveland, 1922-23. By G. E. Harmon, M. D., and G. E. Whitman, A. B. March 21, 1924. 9 pages.
912. Some Tendencies Indicated by the New Life Tables. By Rollo H. Britten. April 11, 1924. 13 pages. 5 cents.
917. Factors in the Mental Health of Boys of Foreign Parentage. A study of 240 Boys of Foreign Parentage Known to a Child Welfare Agency 1916-1923. By Mary C. Jarrett. April 25, 1924. 21 pages.
918. Relative Efficiency of Methods of Sterilization of Milk Bottles at Pasteurization Plants in Minnesota. By H. A. Whittaker, R. W. Archibald, and L. Shere. May 2, 1924. 8 pages.

924. The Prevalence and Trend of Drug Addiction in the United States and Factors Influencing It. By Lawrence Kolb and A. G. DuMez. May 23, 1924. 26 pages.
926. Health by Radio. Vitamins. May 30, 1924. 5 pages.
928. Absenteeism Because of Sickness in Certain Schools in Cleveland, 1922-1923. By G. E. Harmon and G. E. Whitman. June 6, 1924. 8 pages.
931. The Prevention and Treatment of Hay Fever. By William Scheppegegrell. June 20, 1924. 12 pages.
933. Past Incidence of Certain Communicable Diseases Common Among Children. Occurrence of Measles, Whooping Cough, Mumps, Chicken Pox, Scarlet Fever, and Diphtheria, among School Children in Various Localities in the United States. By Selwyn D. Collins. June 27, 1924. 16 pages.
936. Effect of Oil Pollution of Coast and Other Waters on the Public Health. By Committee Consisting of F. W. Lane, A. D. Bauer, H. F. Fisher, and P. N. Harding. July 11, 1924. 6 pages.
939. The Legal Aspects of Milk Control. By James A. Tobey. July 18, 1924. 8 pages.
940. Cancer and Proprietary Cures. July 18, 1924. 8 pages.
941. Thyroid Survey of 47,493 Elementary-School Children in Cincinnati. By Robert Olsen. July 25, 1924. 26 pages.
942. A note on the Relationship of Tonsillectomy to the Occurrence of Scarlet Fever and Diphtheria. By James A. Doull. August 1, 1924. 8 pages.
945. Sanitary Engineering Courses of Engineering Colleges in the United States. By Isador W. Mendelsohn. August 15, 1924. 8 pages.
947. The Income Cycle in the Life of the Wage Earner. By Edgar Sydenstricker, Wilford I. King, and Dorothy Wiehl. August 22, 1924. 8 pages.
- \*948. Correspondence and Reading Courses in Public Health. August 22, 1924. 8 pages. 5 cents.
- \*950. Pellagra in Relation to Milk Supply in the Household. By G. A. Wheeler. August 29, 1924. 4 pages. 5 cents.
951. A Plea for More Attention to the Nutrition of the School Child. By Taliaferro Clark. August 29, 1924. 9 pages.
952. Protection of Small Water Supplies Used by Railroads. By O. E. Brownell. September 5, 1924. 10 pages.
- \*954. Causes of Absences in One Grade of Fifteen Public Schools in Washington, D. C. By Louise Taylor-Jones. September 12, 1924. 10 pages. 5 cents.
955. Thyroid Enlargement Among Montana School Children. With Notes on the Possible Influence of the Place of Residence and the Use of Vegetables and Drinking Water Upon the Condition. By Fred T. Foard. September 12, 1924. 5 pages.
956. Per Capita Medicinal Requirements of Narcotics. Data Secured in a Narcotic Survey of Allegheny County, Md. By A. G. DuMez. September 12, 1924. 4 pages.
957. Morbidity Among School Children in Hagerstown, Md. Cases of Illness and Days Lost from School on Account of Illness Among White School Children During the School Months December, 1921, to May, 1923, inclusive. By Selwyn D. Collins. September 19, 1924. 32 pages.
961. Developments in the Field of Mental Testing. By Helen H. Dolan. October 3, 1924. 18 pages.
962. Mortality from Malaria 1919-1923. By Kenneth F. Maxcy. October 10, 1924. 4 pages.

- \*963. Thyroid Enlargement Among Minnesota School Children. Prevalence as Shown by a Survey of 4,061 Children in 13 localities in 1923. By Robert Olesen and Taliaferro Clark. October 10, 1924. 14 pages. 5 cents.
- 965. Outbreak of Scarlet Fever Caused by Milk-Borne Infection. By Arthur Jordan. October 17, 1924. 7 pages.
- 966. Epidemiological Study of the Minor Respiratory Diseases by the Public Health Service. (Preliminary and Progress Report.) By J. G. Townsend. October 24, 1924. 12 pages.
- \*971. A Statewide Milk Sanitation Program. By Leslie C. Frank. November 7, 1924. 23 pages. 5 cents.
- 975. The Eyesight of the School Child as Determined by the Snellen Test. A Statistical Study of the Results of Vision Tests of 9,245 Native White Children in New York State, Delaware, South Carolina, and Frederick County, Md., and of 2,636 White Children in Cecil County, Md. By Selwyn D. Collins. November 28, 1924. 15 pages.
- 978. A Survey of Public Health Nursing in the State Departments of Health. Compiled by Lucy Minnigerode. December 12, 1924. 27 pages.
- 979. Variation in Eyesight at Different Ages, as Determined by the Snellen Test. A Statistical Study of the Results of Vision Tests of 4,862 Native White School Boys and 6,479 Male White Industrial Workers in the United States. By Selwyn D. Collins and Rollo H. Britten. December 19, 1924. 6 pages.
- \*980. Oil Pollution at Bathing Beaches. Prepared by a Committee Consisting of F. W. Lane, A. D. Bauer, H. F. Fisher, and P. N. Harding. December 19, 1924. 14 pages. 5 cents.
- 983. Endemic Goiter in Colorado. By Robert Olesen. January 2, 1926. 22 pages.
- 984. A Study of the Pellagra-Preventive Action of Dried Beans, Casein, Dried Milk, and Brewers' Yeast, with a Consideration of the Essential Preventive Factors Involved. By Joseph Goldberger and W. F. Tanner. January 9, 1925. 27 pages.
- 991. The Vacuum-Cyanide Method of Delousing Clothing and Baggage. Experimental Data upon Which the Procedure at the New York Quarantine Station is Based. By H. E. Trimble. February 20, 1925. 21 pages.
- 993. Incidence of Sickness Among White School Children in Hagerstown, Md. Frequency of Illness During the School Year 1923-24, and a Summary of the Experience for 1921-1924. By Selwyn D. Collins. February 27, 1925. 14 pages.
- 995. Drainage Ditches Covered Economically. Concrete Pipe Manufactured and Laid Cheaply in Emporia, Va. March 13, 1925. 8 pages.
- 999. Foot Defectiveness in School Children. March 27, 1925. 4 pages.
- 1003. Public Health Service Publications. A List of Publications Issued During the Period April, 1924, to March, 1925. April 10, 1925. 7 pages.
- 1008. Some Effects of High Environmental Temperatures on the Organism. By Frederick B. Flinn. May 1, 1925. 29 pages.
- 1013. Status of Vaccination in American Colleges. By Robert T. Legge. May 22, 1925. 5 pages.
- 1019. Canyon Automobile Camp, Yellowstone National Park. By Isador W. Mendelsohn. June 12, 1925. 12 pages.
- 1020. An Outbreak of Typhoid Fever Caused by Milk-Borne Infection. By L. L. Lumsden. June 19, 1925. 15 pages.
- \*1021. Tetanus in the United States Following the Use of Bunion Pads as a Vaccination Dressing. By Charles Armstrong. June 26, 1925. 6 pages.



1022. Studies of Impounded Waters in Relation to Malaria. By E. H. Gage. June 26, 1925. 19 pages.
1029. Drinking Water Standards. Standards Adopted by the Treasury Department June 20, 1925, for Drinking and Culinary Water Supplied by Common Carriers in Interstate Commerce. April 10, 1925. 28 pages.
1031. Strabismus and Defective Color Sense Among School Children. By Selwyn D. Collins. July 17, 1925. 9 pages.
1046. Studies of Impounded Waters in Relation to Malaria. The Trend of Malaria in Horse Creek Valley, Aiken County, S. C. By E. H. Gage. October 16, 1925. 9 pages.
1049. A Demonstration at Tarboro, N. C., of a System for Sanitary Control of Milk Supplies of Towns and Small Cities. With special reference to operation of a municipal pasteurization plant. By K. E. Miller. November 6, 1925. 12 pages.
- \*1050. Public Health Nursing. By J. G. Townsend. November 6, 1925. 8 pages. 5 cents.
1052. Water Hyacinth and the Breeding of Anopheles. By M. A. Barber and T. B. Hayne. November 20, 1925. 6 pages.
1053. Heredity and Culture as Factors in Body Build. By C. B. Davenport and Louise A. Nelson. November 27, 1925. 5 pages.
1054. Results of Schick Tests in California. By Frank L. Kelly, Ida May Stevens, and Margaret Beattie. December 4, 1925. 14 pages.
1058. Cancer Mortality in the Ten Original Registration States. Trend for the period 1900-1920. By J. W. Schereschewsky. January 1, 1926. 12 pages.
1059. Smallpox Vaccination as Carried out at Lehigh University. By Stanley Thomas. January 8, 1926. 8 pages.
1060. Sickness Among Industrial Employees. Incidence and duration of disabilities from the important causes lasting longer than one week among 133,000 persons in industry in 1924, and a summary of the experience for 1920-1924. January 22, 1926. 19 pages.
1063. Stream Pollution. I. A Review of the Work of the United States Public Health Service in Investigations of Stream Pollution. By W. H. Frost. January 15, 1926. II. The Rate of Deoxygenation of Polluted Waters. By Emery J. Theriault. February 5, 1926. III. The Rate of Atmospheric Reaeration of Sewage-Polluted Streams. By H. W. Streeter. February 12, 1926. IV. Quantitative Studies of Bacterial Pollution and Natural Purification in the Ohio and the Illinois Rivers. By J. K. Hoskins. February 19, 1926. 51 pages.
1065. A Community Health Program. By Hugh S. Cumming. February 26, 1926. 10 pages.

#### Miscellaneous Publications

- \*17. Prevention of Disease and Care of the Sick. 3d edition. By W. G. Stimpson. First Aid to the Injured. By M. H. Foster. 1925. 318 pages. Paper bound, 75 cents; cloth bound, \$1.
- \*27. Tuberculosis: Its Nature and Prevention. By F. C. Smith. 1921. 12 pages; 1 plate. (Reprint of Public Health Bulletin No. 36.) 5 cents.
- \*28. Getting Well: Some Things Worth Knowing about Tuberculosis. By medical officers of the Public Health Service, private specialists, and patients. Edited and arranged by Nathan Barlow. 1922. 5 cents.

#### Posters

1. The House Fly.
4. Influenza.

# Venereal-Disease Publications

## BULLETINS

6. Manpower. A pamphlet for men giving the facts of venereal disease and some material on sex hygiene.
7. The Problem of Sex Education in Schools. For educators.
- 22a. The Place of the Church in the Control of Venereal Disease.
31. Important Confidential Information. For persons infected with venereal disease.
37. A Message from the Government to the Churches of the United States.
39. Venereal Disease Ordinances.
43. The Public Health Nurse and Venereal-Disease Control.
47. The Percentage of Venereal Diseases among Approximately the Second Million Drafted Men—by cities.
51. Fighting Venereal Diseases. Contains information for men and prepared for use in barber shops.
53. Is This Enough? Suggests methods of cooperation in the program of combating venereal disease.
54. The Case Against the Red-Light District.
55. Keeping Fit. For older boys. Tells how to keep in prime physical condition and includes essential information regarding sex hygiene.
59. The Wonderful Story of Life. A pamphlet for parents to read to little children.
60. Healthy, Happy Womanhood. A pamphlet which sets forth in simple language facts regarding sex and venereal diseases essential to the welfare of girls and young women.
61. Sex Education in the Home. For parents.
62. Outdoing the Ostrich. Sets forth the threefold plan for combating venereal disease.
63. The Facts about Venereal Diseases. For Men. Contains in condensed form much of the information in "Manpower."
64. A Square Deal for the Boy in Industry. For those engaged in work with boys. Outlines a method of reaching employed boys with the "Keeping Fit" exhibit.
66. What Representative Citizens Think About Prostitution.
67. Syphilis and Gonorrhea: Diseases of Youth.
68. An Open Forum on the "Open House."
69. The Status of Sex Education in Schools.
70. Dividends from Venereal-Disease Control.
71. You and Your Boy. For parents.
72. The Need for Sex Education. Contains a list of useful books.
- \*73. Placard—Warning Against Venereal Diseases. (For use by railroads, industrial plants, etc. Prices quoted by the Superintendent of Documents, Government Printing Office.)
- \*74. The Need for Sex Education. Includes lists of carefully selected books. 1 page. 5 cents.
- \*75. High Schools and Sex Education. A manual for teachers, setting forth the nature of sex education and describing the courses into which a limited amount of sex information may be introduced when well-qualified teachers are available. 98 pages (buckram). 50 cents.
- \*76. Venereal-Disease Handbook for Community Leaders. 65 pages (buckram). 50 cents.

## REPRINTS FROM PUBLIC HEALTH REPORTS

354. Syphilis. By L. L. Williams. August 4, 1916. 13 pages.
378. Prevalence of Syphilis, as Indicated by the Routine Use of the Wassermann Reaction. By William M. Bryan and James F. Hooker. November 24, 1916. 2 pages.
447. The Control of Venereal Diseases. January 4, 1918. 3 pages.
450. Venereal-Disease Legislation. Showing the trend. January 18, 1918. 30 pages.
455. A State-Wide Plan for the Prevention of Venereal Diseases. By Allan J. McLaughlin. February 22, 1918. 16 pages.
459. Suggestions for State Board of Health Regulations for the Prevention of Venereal Diseases. Approved by Surgeon General of the Army, Surgeon General of the Navy, and Surgeon General of the Public Health Service. March 29, 1918. 7 pages.
468. Progress in Venereal-Disease Control. By J. G. Wilson. May 24, 1918. 6 pages.
474. State and Federal Cooperation in Combating the Venereal Diseases. By J. G. Wilson. June 28, 1918. 6 pages.
477. Venereal-Disease Control. Standards for discharge of carriers. July 19, 1918. 4 pages.
485. Regulations for Allotment of Funds for Venereal-Disease Prevention Work. September 13, 1918. 4 pages.
515. The Place of "Early Treatment" in the Program of Venereal-Disease Control. April 18, 1919. 2 pages.
524. Public Health Service Program for Nation-Wide Control of Venereal Diseases. By C. C. Pierce. May 16, 1919. 8 pages.
542. Antivenereal Disease and Sex Hygiene Program for the Colored Population. By Roscoe C. Brown. July 18, 1919. 7 pages.
561. Venereal-Disease Control Activities. By C. V. Herdliska. October 10, 1919. 6 pages.
574. The Value of Detention as a Reconstruction Measure. By C. C. Pierce. November 28, 1919. 5 pages.
609. Some Possibilities in the Statistical Analysis of Case Reports of Venereal Diseases. By C. C. Pierce and E. Sydenstricker. August 27, 1920. 10 pages.
630. Venereal-Disease Incidence at Different Ages. Tabulation of 8,413 case reports. By Mary L. King and Edgar Sydenstricker. December 24, 1920. 18 pages.
637. Syphilis as a Cause of Insanity. By Elise Donaldson. January 21, 1921. 8 pages.
685. All-America Conference on Venereal Diseases. Proceedings and resolutions. By Charles Bolduan. July 15, 1921. 44 pages.
693. Control of Venereally Diseased Persons in Interstate Commerce. By David Robinson. September 9, 1921. 8 pages.
695. Value of Certain Inquiries on Venereal-Disease Case Reports—A study of 8,413 case reports in Indiana. September 16, 1921. 15 pages.
696. Syphilis and Infant Deaths. By Millard Knowlton. September 23, 1921. 10 pages.
718. Program for Statistics of Venereal Diseases. By L. I. Dublin and M. A. Clark. December 16, 1921. 20 pages.
720. Mortality from Syphilis. 1,183 autopsies in New York. December 30, 1921. 8 pages.
765. The Public Health Institutes, 1922. June 30, 1922. 4 pages.

787. Venereal-Disease Social Service in Plainfield, N. J. By A. J. Casselman. September 22, 1922. 10 pages.
794. An Analysis of 10,000 New Jersey Reports of Gonorrhea and Syphilis. By A. J. Casselman. October 27, 1922. 4 pages.
847. Incidence of Venereal Diseases Among American Seamen in the Orient. By M. R. King. June 29, 1923. 4 pages.

## CARD EXHIBITS

Adolescence and Sex Education—34 cards, 9 by 12 inches. For teachers. This exhibit is not for sale, but may be borrowed from many of the State departments of health and from the United States Public Health Service.

\*The Venereal Disease Menace—50 cards, 9 by 12 inches. For adults. May be purchased from the Superintendent of Documents, Washington, D. C. \$1.

## PERIODICAL PUBLICATION

\*Venereal Disease Information—A monthly publication. Presents the medical aspects of venereal-disease control work. 5 cents per copy. Subscription price, 50 cents per year.

## DEATHS DURING WEEK ENDED APRIL 3, 1926

*Summary of information received by telegraph from industrial insurance companies for week ended April 3, 1926, and corresponding week of 1925. (From the Weekly Health Index, April 6, 1926, issued by the Bureau of the Census, Department of Commerce)*

	Week ended April 3, 1926	Corresponding week 1925
Policies in force.....	63, 940, 731	59, 279, 062
Number of death claims.....	15, 884	12, 622
Death claims per 1,000 policies in force, annual rate..	13.0	11.1

*Deaths from all causes in certain large cities of the United States during the week ended April 3, 1926, infant mortality, annual death rate, and comparison with corresponding week of 1925. (From the Weekly Health Index, April 6, 1926, issued by the Bureau of the Census, Department of Commerce)*

City	Week ended Apr. 3, 1926		Annual death rate per 1,000 corresponding week 1925	Deaths under 1 year		Infant mortality rate, week ended Apr. 3, 1926 <sup>1</sup>
	Total deaths	Death rate <sup>1</sup>		Week ended Apr. 3 1926	Corresponding week, 1925	
Total (68 cities).....	9, 811	17.7	14.7	1, 170	918	* 96
Akron.....	89			7	3	74
Albany.....	68	30.1	19.9	11	8	231
Atlanta.....	82			11	10	
White.....	38			4		
Colored.....	44	( <sup>2</sup> )		7		
Baltimore.....	247	16.2	17.4	17	23	50
White.....	188			12		43
Colored.....	59	( <sup>2</sup> )		5		81
Birmingham.....	65	16.5	18.3	5	10	
White.....	23			5		
Colored.....	42	( <sup>2</sup> )		2		

<sup>1</sup> Annual rate per 1,000 population.

<sup>2</sup> Deaths under 1 year per 1,000 births. Cities left blank are not in the registration area for births.

<sup>3</sup> Data for 63 cities.

<sup>4</sup> Deaths for week ended Friday, Apr. 2, 1926.

<sup>5</sup> In the cities for which deaths are shown by color, the colored population in 1920 constituted the following percentages of the total population: Atlanta 31, Baltimore 15, Birmingham 39, Dallas 15, Fort Worth 14, Houston 25, Kansas City, Kans., 14, Louisville 17, Memphis 38, Nashville 30, New Orleans 26, Norfolk 38, Richmond 32, and Washington, D. C., 25.

Deaths from all causes in certain large cities of the United States during the week ended April 3, 1926, infant mortality, annual death rate, and comparison with corresponding week of 1925. (From the Weekly Health Index, April 6, 1926, issued by the Bureau of the Census, Department of Commerce)—Continued

City	Week ended Apr. 3, 1926		Annual death rate per 1,000 corresponding week 1925	Deaths under 1 year		Infant mortality rate, week ended Apr. 3, 1926
	Total deaths	Death rate		Week ended Apr. 3, 1926	Corresponding week, 1925	
Boston.....	325	21.7	17.8	36	31	101
Bridgeport.....	64			5	5	85
Buffalo.....	257	24.9	14.3	34	24	142
Cambridge.....	53	23.1	12.2	9	2	149
Camden.....	44	17.8	10.9	8	2	135
Chicago <sup>1</sup> .....	920	16.0	14.0	108	109	96
Cincinnati.....	188	23.9	20.1	24	13	149
Cleveland.....	357	19.9	11.4	47	25	122
Columbus.....	90	16.8	17.0	11	8	101
Dallas.....	54	14.6	14.6	8	4	—
White.....	41			6	—	—
Colored.....	13	( <sup>2</sup> )	—	2	—	—
Dayton.....	49	14.8	12.7	10	1	157
Denver.....	86	16.0	19.3	13	8	—
Des Moines.....	27	9.4	12.6	2	1	33
Detroit.....	455	19.0	12.8	78	55	126
Duluth.....	19	9.0	10.9	3	1	70
El Paso.....	33	16.4	13.4	5	8	—
Erie.....	37			9	3	171
Fall River.....	37	15.0	20.2	11	14	180
Flint.....	27	10.8	9.2	7	5	116
Fort Worth.....	44	15.1	10.6	10	3	—
White.....	32			8	—	—
Colored.....	12	( <sup>2</sup> )	—	2	—	—
Grand Rapids.....	46	15.6	11.5	4	7	58
Houston.....	56	17.7	14.9	5	1	—
White.....	32			1	—	—
Colored.....	24	( <sup>2</sup> )	—	4	—	—
Indianapolis.....	116	16.9	14.7	11	14	—
White.....	93			8	—	81
Colored.....	23	( <sup>2</sup> )	—	3	—	165
Jacksonville, Fla.....	54	26.8	16.4	5	1	104
White.....	25			2	—	65
Colored.....	29			3	—	172
Jersey City.....	127	21.0	14.2	17	8	121
Kansas City, Kans.....	38	17.1	16.6	6	3	104
White.....	22			2	—	42
Colored.....	16	( <sup>2</sup> )	—	4	—	525
Kansas City, Mo.....	139	19.7	16.7	17	12	—
Los Angeles.....	223			20	19	56
Louisville.....	95	16.4	16.2	16	3	138
White.....	71			11	—	110
Colored.....	24	( <sup>2</sup> )	—	5	—	314
Lowell.....	46	21.7	15.1	10	5	183
Lynn.....	29	14.7	11.1	1	2	25
Memphis.....	75	22.4	24.2	5	7	—
White.....	34			2	—	—
Colored.....	41	( <sup>2</sup> )	—	3	—	—
Milwaukee.....	139	14.4	13.0	21	14	97
Minneapolis.....	105	12.9	17.0	12	20	67
Nashville <sup>1</sup> .....	53	20.3	23.3	8	4	—
White.....	32			4	—	—
Colored.....	21	( <sup>2</sup> )	—	4	—	—
New Bedford.....	59	25.7	17.0	11	12	191
New Haven.....	82	23.9	16.9	5	9	68
New Orleans.....	167	21.0	18.1	13	15	—
White.....	97			6	—	—
Colored.....	70	( <sup>2</sup> )	—	7	—	—
New York.....	2,026	18.0	13.4	244	185	99
Bronx Borough.....	253	15.1	10.6	26	23	86
Brooklyn Borough.....	719	17.0	12.4	99	61	160
Manhattan Borough.....	830	22.3	17.1	93	88	103
Queens Borough.....	177	12.9	9.6	22	12	100
Richmond Borough.....	47	17.7	14.0	4	1	70
Newark, N. J.....	136	15.7	12.4	18	10	86

<sup>1</sup> Deaths for week ended Friday, Apr. 2, 1926.

<sup>2</sup> In the cities for which deaths are shown by color, the colored population in 1920 constituted the following percentages of the total population: Atlanta 31, Baltimore 15, Birmingham 39, Dallas 15, Fort Worth 14, Houston 25, Kansas City, Kans., 14, Louisville 17, Memphis 38, Nashville 30, New Orleans 26, Norfolk 38, Richmond 32, and Washington, D. C., 26.

Deaths from all causes in certain large cities of the United States during the week ended April 3, 1926, infant mortality, annual death rate, and comparison with corresponding week of 1925. (From the Weekly Health Index, April 6, 1926, issued by the Bureau of the Census, Department of Commerce)—Continued

City	Week ended Apr. 3, 1926		Annual death rate per 1,000 corresponding week 1925	Deaths under 1 year		Infant mortality rate, week ended Apr. 3, 1926
	Total deaths	Death rate		Week ended Apr. 3, 1926	Corresponding week, 1925	
Norfolk.....	44			4	6	74
White.....	22			1		30
Colored.....	22	( <sup>1</sup> )		3		149
Oakland.....	52	10.7	12.5	4	2	46
Oklahoma City.....	26			4	3	
Omaha.....	75	18.5	15.3	5	3	52
Paterson.....	28	10.3	9.9	4	4	70
Philadelphia.....	569	15.0	13.9	64	64	85
Pittsburgh.....	307	25.3	19.2	45	25	150
Portland, Oreg.....	59	10.9	14.4	3	7	31
Providence.....	156	30.4	16.0	21	7	174
Richmond.....	53	14.8	12.6	8	5	101
White.....	31			1		20
Colored.....	22	( <sup>1</sup> )		7		245
Rochester.....	100	16.5	13.8	6	9	48
St. Louis.....	331	21.0	17.0	30	15	
St. Paul.....	77	16.3	17.6	4	6	36
Salt Lake City <sup>4</sup> .....	24	9.6	8.4	6	2	83
San Antonio.....	60	15.8	15.5	6	5	
San Diego.....	37	18.2	19.7	2	4	42
San Francisco.....	166	15.5	16.7	11	9	66
Schenectady.....	36	20.2	15.2	2	2	58
Seattle.....	63			3	2	28
Somerville.....	31	16.3	12.1	0	2	0
Spokane.....	39	18.7	15.8	3	3	70
Springfield, Mass.....	43	15.8	15.8	3	7	43
Syracuse.....	46	13.2	12.0	7	4	73
Tacoma.....	15	7.5	14.0	0	3	0
Toledo.....	80	14.5	13.4	9	10	87
Trenton.....	53	20.9	17.8	3	4	50
Washington, D. C.....	125	13.1	15.1	11	8	63
White.....	75			7		58
Colored.....	50	( <sup>1</sup> )		4		73
Waterbury.....	26			4	2	86
Wilmington, Del.....	36	15.4	12.0	7	2	164
Worcester.....	103	28.2	17.2	9	14	104
Yonkers.....	33	15.1	11.5	4	2	90
Youngstown.....	44	14.4	10.1	7	3	89

<sup>4</sup> Deaths for week ended Friday, Apr. 2, 1926.

<sup>1</sup> In the cities for which deaths are shown by color, the colored population in 1920 constituted the following percentages of the total population: Atlanta 31, Baltimore 15, Birmingham 38, Dallas 15, Fort Worth 14, Houston 25, Kansas City, Kans., 14, Louisville 17, Memphis 33, Nashville 30, New Orleans 26, Norfolk 38, Richmond 32, and Washington, D. C., 25.

# PREVALENCE OF DISEASE

*No health department, State or local, can effectively prevent or control disease without knowledge of when, where, and under what conditions cases are occurring*

## UNITED STATES

### CURRENT WEEKLY STATE REPORTS

These reports are preliminary and the figures are subject to change when later returns are received by the State health officers

#### Reports for Week Ended April 10, 1926

ALABAMA		ARKANSAS—continued	
	Cases		Cases
Cerebrospinal meningitis.....	1	Scarlet fever.....	7
Chicken pox.....	101	Smallpox.....	12
Diphtheria.....	8	Trachoma.....	1
Influenza.....	528	Tuberculosis.....	7
Lethargic encephalitis.....	2	Typhoid fever.....	3
Malaria.....	12	Whooping cough.....	50
Measles.....	188		
Mumps.....	92	CALIFORNIA	
Pellagra.....	5	Cerebrospinal meningitis:	
Pneumonia.....	128	Los Angeles.....	1
Polomyelitis.....	1	San Francisco.....	1
Scarlet fever.....	19	Chicken pox.....	245
Smallpox.....	42	Diphtheria.....	99
Tetanus.....	1	Influenza.....	30
Tuberculosis.....	51	Measles.....	174
Typhoid fever.....	10	Mumps.....	211
Whooping cough.....	29	Polomyelitis—Los Angeles County.....	1
		Scarlet fever.....	85
ARIZONA		Smallpox:	
Chicken pox.....	5	Los Angeles.....	31
Diphtheria.....	1	Oakland.....	16
Influenza.....	9	Scattering.....	28
Measles.....	13	Typhoid fever.....	12
Mumps.....	3	Whooping cough.....	56
Pneumonia.....	2		
Scarlet fever.....	9	COLORADO	
Trachoma.....	1	Chicken pox.....	73
Tuberculosis.....	68	Diphtheria.....	28
Typhoid fever.....	5	Influenza.....	52
Whooping cough.....	1	Lethargic encephalitis.....	1
		Measles.....	90
ARKANSAS		Mumps.....	4
Chicken pox.....	26	Pneumonia.....	7
Diphtheria.....	1	Polomyelitis.....	1
Influenza.....	327	Puerperal septicaemia.....	1
Malaria.....	27	Scarlet fever.....	29
Measles.....	39	Smallpox.....	1
Mumps.....	22	Tuberculosis.....	29
Ophthalmia neonatorum.....	1	Typhoid fever.....	4
Pellagra.....	5	Whooping cough.....	108

CONNECTICUT		GEORGIA—continued	
	Cases		Cases
Cerebrospinal meningitis.....	1	Measles.....	236
Chicken pox.....	35	Mumps.....	50
Conjunctivitis (infectious).....	1	Pellagra.....	7
Diphtheria.....	17	Pneumonia.....	99
German measles.....	14	Scarlet fever.....	11
Influenza.....	157	Septic sore throat.....	8
Lethargic encephalitis.....	1	Smallpox.....	33
Measles.....	595	Tuberculosis.....	26
Mumps.....	16	Typhoid fever.....	4
Paratyphoid fever.....	1	Whooping cough.....	28
Pneumonia (broncho).....	89		
Pneumonia (lobar).....	106	IDAHO	
Scarlet fever.....	91	Cerebrospinal meningitis:	
Tuberculosis (pulmonary).....	19	American Falls.....	1
Typhoid fever.....	1	Burley.....	1
Whooping cough.....	68	Moscow.....	1
		New Meadows.....	1
DELAWARE		Grofino.....	1
Cerebrospinal meningitis.....	1	Chicken pox.....	7
Chicken pox.....	4	Diphtheria.....	3
Diphtheria.....	4	Influenza.....	20
Influenza.....	2	Jaundice (epidemic).....	4
Measles.....	110	Measles.....	28
Mumps.....	1	Mumps.....	10
Ophthalmia neonatorum.....	1	Pneumonia.....	1
Pneumonia.....	3	Scarlet fever.....	21
Scarlet fever.....	6	Smallpox.....	8
Tuberculosis.....	2	Trachoma.....	1
Whooping cough.....	9	Tuberculosis.....	1
		Typhoid fever.....	2
DISTRICT OF COLUMBIA		Whooping cough.....	20
Chicken pox.....	37		
Diphtheria.....	17	ILLINOIS	
Influenza.....	4	Cerebrospinal meningitis:	
Measles.....	576	Cook County.....	2
Pneumonia.....	46	Fayette County.....	1
Scarlet fever.....	24	Diphtheria.....	78
Tuberculosis.....	20	Influenza.....	193
Typhoid fever.....	1	Lethargic encephalitis—Cook County.....	1
Whooping cough.....	43	Measles.....	899
		Pneumonia.....	493
FLORIDA		Poliomyelitis—Cass County.....	1
Chicken pox.....	71	Scarlet fever.....	367
Diphtheria.....	5	Smallpox.....	
German measles.....	6	Bond County.....	10
Influenza.....	10	Saline County.....	23
Malaria.....	1	Scattering.....	19
Measles.....	31	Tuberculosis.....	425
Mumps.....	34	Typhoid fever.....	9
Paratyphoid fever.....	1	Whooping cough.....	171
Pneumonia.....	5		
Scarlet fever.....	10	INDIANA	
Smallpox.....	115	Chicken pox.....	46
Tuberculosis.....	1	Diphtheria.....	35
Typhoid fever.....	2	Influenza.....	110
Whooping cough.....	32	Measles.....	2, 126
		Mumps.....	3
GEORGIA		Pneumonia.....	24
Chicken pox.....	39	Scarlet fever.....	194
Conjunctivitis (acute).....	4	Smallpox.....	94
Diphtheria.....	10	Trachoma.....	4
Hook worm disease.....	1	Tuberculosis.....	45
Influenza.....	275	Typhoid fever.....	4
Malaria.....	8	Whooping cough.....	139



## IOWA

	Cases
Chicken pox.....	18
Diphtheria.....	14
German measles.....	672
Influenza.....	4
Measles.....	151
Mumps.....	30
Pneumonia.....	3
Scarlet fever.....	54
Smallpox.....	19
Tuberculosis.....	11
Whooping cough.....	20

## KANSAS

Cerebrospinal meningitis.....	5
Chicken pox.....	82
Diphtheria.....	20
German measles.....	6
Influenza.....	60
Measles.....	878
Mumps.....	53
Pneumonia.....	191
Poliomyelitis—Dighton.....	1
Scabies.....	1
Scarlet fever.....	65
Smallpox.....	9
Tetanus.....	2
Trachoma.....	1
Tuberculosis.....	78
Typhoid fever.....	4
Vincent's angina.....	1
Whooping cough.....	114

## LOUISIANA

Cerebrospinal meningitis.....	1
Diphtheria.....	8
Influenza.....	80
Malaria.....	6
Pneumonia.....	39
Scarlet fever.....	20
Smallpox.....	26
Tuberculosis.....	60
Typhoid fever.....	5
Whooping cough.....	7

## MAINE

Cerebrospinal meningitis.....	1
Chicken pox.....	29
Diphtheria.....	4
German measles.....	33
Influenza.....	489
Measles.....	329
Mumps.....	35
Pneumonia.....	39
Scarlet fever.....	23
Septic sore throat.....	1
Tuberculosis.....	9
Typhoid fever.....	8
Vincent's angina.....	8
Whooping cough.....	43

MARYLAND<sup>1</sup>

Chicken pox.....	79
Diphtheria.....	23

## MARYLAND—continued

	Cases
Dysentery.....	16
German measles.....	4
Influenza.....	124
Lethargic encephalitis.....	1
Malaria.....	2
Measles.....	757
Mumps.....	188
Ophthalmia neonatorum.....	1
Paratyphoid fever.....	1
Pneumonia (broncho).....	86
Pneumonia (lobar).....	82
Scarlet fever.....	41
Septic sore throat.....	5
Tuberculosis.....	72
Typhoid fever.....	5
Whooping cough.....	58

## MASSACHUSETTS

Cerebrospinal meningitis.....	5
Chicken pox.....	105
Conjunctivitis (suppurative).....	5
Diphtheria.....	70
German measles.....	260
Influenza.....	236
Lethargic encephalitis.....	2
Malaria.....	1
Measles.....	944
Mumps.....	108
Ophthalmia neonatorum.....	22
Pneumonia (lobar).....	252
Poliomyelitis.....	2
Scarlet fever.....	236
Septic sore throat.....	1
Trachoma.....	2
Tuberculosis (pulmonary).....	130
Tuberculosis (other forms).....	26
Typhoid fever.....	1
Whooping cough.....	310

## MICHIGAN

Diphtheria.....	78
Measles.....	1,457
Pneumonia.....	329
Scarlet fever.....	350
Smallpox.....	7
Tuberculosis.....	53
Typhoid fever.....	6
Whooping cough.....	212

## MINNESOTA

Cerebrospinal meningitis.....	2
Chicken pox.....	134
Diphtheria.....	46
Influenza.....	5
Lethargic encephalitis.....	1
Measles.....	505
Pneumonia.....	5
Scarlet fever.....	232
Smallpox.....	6
Tuberculosis.....	46
Typhoid fever.....	3
Whooping cough.....	24

<sup>1</sup> Week ended Friday.



## OREGON—continued

	Cases
Pneumonia.....	16
Poliomyelitis.....	1
Scarlet fever.....	44
Septic sore throat.....	4
Smallpox.....	20
Tuberculosis.....	11
Typhoid fever.....	4
Whooping cough.....	33

## PENNSYLVANIA

Anthrax—Philadelphia.....	1
Cerebrospinal meningitis.....	1
Chicken pox.....	500
Diphtheria.....	105
German measles.....	58
Impetigo contagiosa.....	2
Lethargic encephalitis—	
McKeesport.....	1
Philadelphia.....	3
Measles.....	4,336
Mumps.....	174
Ophthalmia neonatorum—Philadelphia.....	1
Pneumonia.....	302
Poliomyelitis—Philadelphia.....	1
Puerperal septicemia.....	4
Scabies.....	2
Scarlet fever.....	650
Smallpox.....	1
Tuberculosis.....	160
Typhoid fever.....	20
Whooping cough.....	436

## RHODE ISLAND

Chicken pox.....	2
Diphtheria.....	6
German measles.....	13
Influenza.....	19
Measles.....	132
Mumps.....	5
Pneumonia.....	1
Scarlet fever.....	10
Tuberculosis.....	11
Typhoid fever.....	1
Whooping cough.....	9

## SOUTH DAKOTA

Chicken pox.....	27
Diphtheria.....	2
Influenza.....	16
Measles.....	23
Mumps.....	31
Pneumonia.....	10
Scarlet fever.....	112
Smallpox.....	2
Tuberculosis.....	1
Typhoid fever.....	3
Whooping cough.....	5

## TENNESSEE

Cerebrospinal meningitis:	
Dyer County.....	1
Lawrence County.....	1
Chicken pox.....	36
Diphtheria.....	22
Influenza.....	526
Malaria.....	9

## TENNESSEE—continued

	Cases
Measles.....	379
Mumps.....	22
Ophthalmia neonatorum.....	1
Pellagra.....	3
Pneumonia.....	83
Poliomyelitis—Bradley County.....	1
Scarlet fever.....	30
Smallpox:	
Memphis.....	10
Scattering.....	14
Trachoma.....	1
Tuberculosis.....	51
Typhoid fever.....	6
Whooping cough.....	46

## TEXAS

Anthrax.....	1
Chicken pox.....	139
Dengue.....	12
Diphtheria.....	27
Influenza.....	515
Lethargic encephalitis.....	1
Measles.....	17
Mumps.....	18
Pellagra.....	1
Pneumonia.....	40
Scarlet fever.....	29
Smallpox.....	56
Tuberculosis.....	43
Typhoid fever.....	5
Whooping cough.....	82

## UTAH

Chicken pox.....	22
Diphtheria.....	6
Measles.....	9
Mumps.....	26
Pneumonia.....	1
Scarlet fever.....	3
Smallpox.....	1
Whooping cough.....	124

## VERMONT

Chicken pox.....	10
Measles.....	10
Mumps.....	10
Scarlet fever.....	8
Whooping cough.....	38

## VIRGINIA

Smallpox.....	3
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## WASHINGTON

Cerebrospinal meningitis:	
Stevens County.....	2
Tacoma.....	2
Chicken pox.....	65
Diphtheria.....	11
German measles.....	61
Measles.....	60
Mumps.....	68
Pneumonia.....	1
Scarlet fever.....	53
Smallpox.....	61
Tuberculosis.....	74
Typhoid fever.....	7
Whooping cough.....	48

† Deaths.

WEST VIRGINIA		WISCONSIN—continued	
	Cases		Cases
Anthrax—Clarksburg.....	9	Scattering—Continued	
Chicken pox.....	62	Chicken pox.....	86
Diphtheria.....	13	Diphtheria.....	20
Influenza.....	465	German measles.....	63
Measles.....	589	Influenza.....	780
Scarlet fever.....	48	Measles.....	642
Smallpox.....	7	Mumps.....	101
Tuberculosis.....	13	Ophthalmia neonatorum.....	1
Typhoid fever.....	5	Pneumonia.....	64
Whooping cough.....	89	Scarlet fever.....	140
WISCONSIN		Smallpox.....	6
Milwaukee:		Tuberculosis.....	17
Chicken pox.....	108	Whooping cough.....	99
Diphtheria.....	6		
German measles.....	1	WYOMING	
Influenza.....	34	Chicken pox.....	10
Measles.....	126	German measles.....	3
Mumps.....	30	Measles.....	3
Pneumonia.....	82	Mumps.....	3
Scarlet fever.....	25	Rocky Mountain spotted fever:	
Typhoid fever.....	1	Natrona.....	1
Whooping cough.....	33	Weston.....	1
Scattering.....		Scarlet fever.....	27
Cerebrospinal meningitis.....	3	Whooping cough.....	14

## Reports for Week Ended April 3, 1926

DISTRICT OF COLUMBIA		NORTH DAKOTA—continued	
	Cases		Cases
Chicken pox.....	34	Pneumonia.....	41
Diphtheria.....	18	Scarlet fever.....	77
Influenza.....	5	Smallpox.....	1
Measles.....	431	Trachoma.....	29
Pneumonia.....	58	Tuberculosis.....	8
Scarlet fever.....	22	Typhoid fever.....	4
Smallpox.....	1	Whooping cough.....	13
Tuberculosis.....	19		
Typhoid fever.....	5	SOUTH DAKOTA	
Whooping cough.....	38	Chicken pox.....	13
NORTH DAKOTA		Diphtheria.....	3
Cerebrospinal meningitis.....	1	Influenza.....	2
Chicken pox.....	6	Measles.....	32
Diphtheria.....	10	Mumps.....	128
German measles.....	106	Pneumonia.....	14
Influenza.....	131	Scarlet fever.....	121
Lethargic encephalitis.....	1	Smallpox.....	9
Measles.....	46	Typhoid fever.....	3
Mumps.....	51	Whooping cough.....	14

## Report for Week Ended March 27, 1926

NORTH DAKOTA		NORTH DAKOTA—continued	
	Cases		Cases
Chicken pox.....	28	Pneumonia.....	23
Diphtheria.....	7	Poliomyelitis.....	1
German measles.....	198	Scarlet fever.....	80
Influenza.....	98	Tuberculosis.....	3
Measles.....	19	Whooping cough.....	10
Mumps.....	99		

## SUMMARY OF MONTHLY REPORTS FROM STATES

The following summary of monthly State reports is published weekly and covers only those States from which reports are received during the current week:

State	Cerebro-spinal meningitis	Diphtheria	Influenza	Malaria	Measles	Pellagra	Polio-myelitis	Scarlet fever	Small-pox	Typhoid fever
<i>January, 1926</i>										
Nebraska.....	2	40	8	-----	-----	-----	0	181	-----	4
<i>February, 1926</i>										
California.....	39	473	1,803	6	364	2	15	673	658	41
Colorado.....	0	84	31	-----	47	-----	0	103	4	6
District of Columbia	1	95	109	-----	251	0	0	103	0	3
Florida.....	0	55	139	7	29	0	0	49	558	31
Hawaii Territory.....	2	25	16	-----	32	-----	0	3	0	5
Nebraska.....	0	42	16	-----	-----	-----	0	179	-----	1
Rhode Island.....	1	27	21	0	2,138	-----	0	51	0	3
South Dakota.....	0	31	-----	-----	86	-----	0	396	15	7
<i>March, 1926</i>										
Arizona.....	0	17	302	0	10	2	0	43	1	4
Connecticut.....	4	190	889	0	4,670	-----	3	426	0	6
District of Columbia	0	57	19	-----	1,555	1	1	92	6	7
Nebraska.....	3	20	35	-----	-----	-----	1	234	-----	2
Wisconsin.....	4	166	844	0	2,240	0	2	709	48	19

## PLAGUE-ERADICATIVE MEASURES IN LOS ANGELES, CALIF.

The following items were taken from the report of plague-eradication measures from Los Angeles, Calif.:

Week ended Mar. 27, 1926:

Number of rats trapped.....	1,426
Number of rats found to be plague infected.....	0
Number of squirrels examined.....	509
Number of squirrels found to be plague infected.....	0
Number of mice trapped.....	1,684
Number of mice found to be plague infected.....	0

Date of discovery of last plague-infected rodent, Nov. 6, 1925.

Date of last human case, Jan. 15, 1925.

## GENERAL CURRENT SUMMARY AND WEEKLY REPORTS FROM CITIES

*Diphtheria.*—For the week ended March 27, 1926, 36 States reported 1,130 cases of diphtheria. For the week ended March 28, 1925, the same States reported 1,455 cases of this disease. Ninety-nine cities, situated in all parts of the country and having an aggregate population of more than 30,000,000, reported 756 cases of diphtheria for the week ended March 27, 1926. Last year for the corresponding week they reported 921 cases. The estimated expectancy for these cities was 972 cases. The estimated expectancy is based on the experience of the last nine years, excluding epidemics.

*Measles.*—Thirty-three States reported 16,823 cases of measles for the week ended March 27, 1926, and 4,479 cases of this disease

for the week ended March 28, 1925. Ninety-nine cities reported 10,657 cases of measles for the week this year, and 2,793 cases last year.

*Poliomyelitis.*—The health officers of 36 States reported 11 cases of poliomyelitis for the week ended March 27, 1926. The same States reported 17 cases for the week ended March 28, 1925.

*Scarlet fever.*—Scarlet fever was reported for the week as follows: Thirty-six States—this year, 3,815 cases; last year, 4,173 cases; 99 cities—this year, 1,876 cases; last year, 2,304 cases; estimated expectancy, 1,213 cases.

*Smallpox.*—For the week ended March 27, 1926, 36 States reported 1,008 cases of smallpox. Last year for the corresponding week they reported 981 cases. Ninety-nine cities reported smallpox for the week as follows: 1926, 218 cases; 1925, 318 cases; estimated expectancy, 128 cases. Six deaths from smallpox were reported by these cities for the week this year—at Los Angeles, Calif.

*Typhoid fever.*—One hundred and thirty-five cases of typhoid fever were reported for the week ended March 27, 1926, by 35 States. For the corresponding week of 1925, the same States reported 218 cases of this disease. Ninety-nine cities reported 48 cases of typhoid fever for the week this year and 59 cases for the corresponding week last year. The estimated expectancy for these cities was 46 cases.

*Influenza and pneumonia.*—Deaths from influenza and pneumonia were reported for the week by 94 cities, with a population of more than 29,500,000, as follows: 1926, 2,651 deaths; 1925, 1,273.

#### City reports for week ended March 27, 1926

The "estimated expectancy" given for diphtheria, poliomyelitis, scarlet fever, smallpox, and typhoid fever is the result of an attempt to ascertain from previous occurrence how many cases of the disease under consideration may be expected to occur during a certain week in the absence of epidemics. It is based on reports to the Public Health Service during the past nine years. It is in most instances the median number of cases reported in the corresponding week of the preceding years. When the reports include several epidemics or when for other reasons the median is unsatisfactory, the epidemic periods are excluded and the estimated expectancy is the mean number of cases reported for the week during nonepidemic years.

If reports have not been received for the full nine years, data are used for as many years as possible, but no year earlier than 1917 is included. In obtaining the estimated expectancy, the figures are smoothed when necessary to avoid abrupt deviations from the usual trend. For some of the diseases given in the table the available data were not sufficient to make it practicable to compute the estimated expectancy.

Division, State, and city	Population July 1, 1925, estimated	Chicken pox, cases reported	Diphtheria		Influenza		Measles, cases reported	Mumps, cases reported	Pneumonia, deaths reported
			Cases, estimated expectancy	Cases reported	Cases reported	Deaths reported			
NEW ENGLAND									
Maine									
Portland.....	75,333	5	1	0	3	0	52	6	3
New Hampshire									
Concord.....	22,546	0	0	0	0	0	2	0	1
Vermont									
Barre.....	10,908	0	0	0	0	0	0	0	0
Burlington.....	24,639	0	0	0	0	0	0	0	2

## City reports for week ended March 27, 1926—Continued

Division, State, and city	Population July 1, 1925, estimated	Chicken pox, cases reported	Diphtheria		Influenza		Measles, cases reported	Mumps, cases reported	Pneumonia, deaths reported
			Cases, estimated expectancy	Cases reported	Cases reported	Deaths reported			
NEW ENGLAND—CON.									
Massachusetts:									
Boston.....	779,620	67	58	29	85	6	131	45	77
Fall River.....	128,993	3	4	3	25	3	4	1	1
Springfield.....	142,065	5	4	0	10	3	110	0	6
Worcester.....	190,757	6	5	7	12	1	6	0	21
Rhode Island:									
Pawtucket.....	69,760	0	1	0	0	0	28	0	12
Providence.....	267,918	0	10	7	45	7	141	0	26
Connecticut:									
Bridgeport.....	(1)	1	7	2	30	5	3	1	9
Hartford.....	160,197	5	7	11	14	2	32	0	12
New Haven.....	178,927	10	4	0	28	2	61	1	14
MIDDLE ATLANTIC									
New York:									
Buffalo.....	538,016	15	12	13	19	11	8	0	35
New York.....	5,873,356	135	242	169	865	133	2,279	70	630
Rochester.....	316,786	18	8	10	1	9	69	0	14
Syracuse.....	182,003	9	6	6	21	2	99	39	15
New Jersey:									
Camden.....	128,642	5	5	4	4	4	36	0	11
Newark.....	452,513	47	17	17	67	4	360	11	32
Trenton.....	132,020	3	4	1	6	5	12	2	14
Pennsylvania:									
Philadelphia.....	1,979,364	67	83	48	-----	43	712	23	161
Pittsburgh.....	631,563	49	21	16	-----	11	60	0	66
Reading.....	112,707	3	3	1	-----	2	23	1	13
EAST NORTH CENTRAL									
Ohio:									
Cincinnati.....	409,333	10	9	4	2	13	31	4	37
Cleveland.....	936,485	29	23	35	660	33	336	3	74
Columbus.....	279,836	13	4	2	0	0	604	0	7
Toledo.....	287,380	45	4	7	7	6	166	0	8
Indiana:									
Fort Wayne.....	97,846	4	3	0	0	3	20	0	3
Indianapolis.....	358,619	19	7	0	0	2	980	2	29
South Bend.....	80,091	5	1	1	0	0	4	0	8
Terre Haute.....	71,071	0	0	0	0	0	16	0	2
Illinois:									
Chicago.....	2,095,239	119	98	53	369	65	107	18	205
Peoria.....	81,564	4	1	0	0	1	32	10	4
Springfield.....	63,923	23	1	0	5	4	14	3	1
Michigan:									
Detroit.....	1,245,824	44	51	30	42	24	563	7	112
Flint.....	120,316	21	5	3	10	1	18	1	14
Grand Rapids.....	153,098	10	3	1	0	3	34	0	7
Wisconsin:									
Kenosha.....	50,891	5	1	3	3	0	1	0	2
Madison.....	46,385	2	0	1	0	0	162	0	0
Milwaukee.....	509,192	121	14	19	6	5	118	36	13
Racine.....	57,707	8	1	0	0	0	2	0	4
Superior.....	39,671	0	0	0	0	0	7	0	0
WEST NORTH CENTRAL									
Minnesota:									
Duluth.....	110,502	4	1	0	0	0	11	0	4
Minneapolis.....	425,435	77	16	14	0	0	284	4	11
St. Paul.....	246,001	28	15	8	0	2	13	5	10
Iowa:									
Davenport.....	52,469	4	1	1	0	-----	0	0	-----
Des Moines.....	141,441	0	2	1	596	-----	10	0	-----
Sioux City.....	76,411	3	1	0	0	-----	5	0	-----
Waterloo.....	36,771	2	1	0	0	-----	6	0	-----
Missouri:									
Kansas City.....	367,481	17	7	4	13	11	261	2	23
St. Joseph.....	78,342	0	1	2	0	1	3	0	7
St. Louis.....	821,543	41	39	41	2	2	365	8	-----

<sup>1</sup> No estimate made.

## City reports for week ended March 27, 1926—Continued

Division, State, and city	Population July 1, 1925, estimated	Chicken pox, cases reported	Diphtheria		Influenza		Measles, cases reported	Mumps, cases reported	Pneumonia, deaths reported
			Cases, estimated expectancy	Cases reported	Cases reported	Deaths reported			
WEST NORTH CENTRAL—continued									
North Dakota:									
Fargo.....	26,403	4	1	0	0	0	0	17	2
Grand Forks.....	14,811	0	0	0	0	0	5	0	—
South Dakota:									
Aberdeen.....	15,036	1	0	0	0	—	14	46	—
Sioux Falls.....	30,127	2	0	0	0	0	8	0	0
Nebraska:									
Lincoln.....	60,941	4	2	1	0	0	0	3	3
Omaha.....	211,768	13	4	1	0	0	26	1	14
Kansas:									
Topeka.....	55,411	31	1	2	0	2	10	0	1
Wichita.....	88,367	21	1	2	0	0	168	0	5
SOUTH ATLANTIC									
Delaware:									
Wilmington.....	122,049	0	2	4	0	0	45	0	9
Maryland:									
Baltimore.....	796,296	84	27	9	30	11	484	186	56
Cumberland.....	33,741	1	1	1	3	0	10	0	2
Frederick.....	12,035	0	1	0	0	0	33	3	0
District of Columbia:									
Washington.....	497,906	27	10	6	7	0	389	0	26
Virginia:									
Lynchburg.....	30,395	8	1	2	0	0	31	1	0
Norfolk.....	( <sup>1</sup> )	—	1	—	—	—	—	—	—
Richmond.....	186,403	8	2	2	0	4	17	8	8
Roanoke.....	53,208	3	1	1	0	1	143	1	9
West Virginia:									
Charleston.....	49,019	22	1	1	6	2	34	0	3
Huntington.....	63,485	0	0	0	2	—	5	0	—
Wheeling.....	56,208	12	1	0	2	0	142	1	13
North Carolina:									
Raleigh.....	30,371	0	0	1	0	1	0	0	4
Wilmington.....	37,061	23	0	0	0	1	0	6	1
Winston-Salem.....	69,031	1	0	0	0	4	27	4	4
South Carolina:									
Charleston.....	73,125	0	0	0	21	8	1	0	1
Columbia.....	41,225	6	0	1	0	0	0	0	0
Greenville.....	27,311	1	0	0	0	0	0	1	3
Georgia:									
Atlanta.....	( <sup>1</sup> )	7	2	2	24	6	13	2	14
Brunswick.....	16,809	5	0	0	0	0	0	0	0
Savannah.....	93,134	9	0	1	17	1	6	1	2
Florida:									
Tampa.....	94,743	6	1	0	0	2	0	1	10
EAST SOUTH CENTRAL									
Kentucky:									
Covington.....	58,309	—	1	—	—	0	—	—	5
Louisville.....	205,935	13	5	3	36	12	368	2	45
Tennessee:									
Memphis.....	174,533	26	5	4	0	9	58	2	8
Nashville.....	136,220	2	1	0	0	17	42	0	16
Alabama:									
Birmingham.....	205,670	21	2	0	38	9	94	9	10
Mobile.....	65,955	4	0	0	3	2	0	0	8
Montgomery.....	46,481	5	0	0	0	0	0	47	0
WEST SOUTH CENTRAL									
Arkansas:									
Fort Smith.....	31,643	15	1	0	0	—	0	0	—
Little Rock.....	74,216	1	1	0	5	2	10	0	3
Louisiana:									
New Orleans.....	414,493	1	9	19	11	8	19	0	15
Shreveport.....	57,857	5	0	1	1	1	0	1	2
Oklahoma:									
Oklahoma City.....	( <sup>1</sup> )	0	1	0	44	1	10	0	3

<sup>1</sup> No estimate made.



## City reports for week ended March 27, 1926—Continued

Division, State, and city	Population July 1, 1925, estimated	Chicken pox, cases re-ported	Diphtheria		Influenza		Meas-les, cases re-ported	Mumps, cases re-ported	Pneu-monia, deaths re-ported
			Cases, estimated expectancy	Cases re-ported	Cases re-ported	Deaths re-ported			
WEST SOUTH CENTRAL—continued									
Texas:									
Dallas.....	194,450	38	4	3	5	5	0	0	3
Galveston.....	48,375	0	0	0	0	1	0	0	3
Houston.....	104,954	3	2	9	0	3	0	1	6
San Antonio.....	198,069	1	1	4	0	6	0	0	5
MOUNTAIN									
Montana:									
Billings.....	17,971	0	1	0	0	0	0	6	3
Great Falls.....	20,883	18	1	0	0	1	7	11	2
Helena.....	12,037	0	0	0	0	0	0	7	1
Missoula.....	12,603	0	1	0	11	1	0	3	2
Idaho:									
Boise.....	23,042	0	0	0	0	0	1	0	0
Colorado:									
Denver.....	280,911	22	8	17	4	22	0	8	8
Pueblo.....	43,787	11	1	3	0	0	3	0	2
New Mexico:									
Albuquerque.....	21,000	6	0	0	3	1	0	2	0
Arizona:									
Phoenix.....	38,669	0	1	2	0	1	0	0	3
Utah:									
Salt Lake City.....	130,948	22	2	8	0	1	0	18	3
Nevada:									
Reno.....	12,665	0	0	0	0	0	1	0	0
PACIFIC									
Washington:									
Seattle.....	(1)	40	5	1	0	-----	52	30	-----
Spokane.....	108,897	13	3	2	0	-----	0	0	-----
Tacoma.....	104,455	0	0	1	0	0	6	0	0
Oregon:									
Portland.....	282,383	44	4	5	1	0	15	4	6
California:									
Los Angeles.....	(1)	74	39	65	17	1	15	12	20
Sacramento.....	72,260	6	1	2	0	0	1	19	6
San Francisco.....	557,530	54	22	18	4	3	94	13	7

Division, State, and city	Scarlet fever		Smallpox			Typhoid fever				Whoop- ing cough, cases re-ported	Deaths, all causes
	Cases, esti- mated expec- tancy	Cases re- ported	Cases, esti- mated expec- tancy	Cases re- ported	Deaths re- ported	Tuber- culosis, deaths re- ported	Cases, esti- mated expec- tancy	Cases re- ported	Deaths re- ported		
NEW ENGLAND											
Maine:											
Portland .....	3	5	0	0	0	0	1	0	0	4	25
New Hampshire:											
Concord .....	1	1	0	0	0	0	0	0	0	0	9
Vermont:											
Barre .....	1	0	0	0	0	0	0	0	0	0	3
Burlington .....	0	9	0	0	0	0	0	0	0	0	6
Massachusetts:											
Boston .....	63	87	0	0	0	24	1	0	0	154	366
Fall River .....	3	3	0	0	0	4	0	0	0	1	38
Springfield .....	6	6	0	0	0	3	0	0	0	15	
Worcester .....	10	4	0	0	0	1	0	0	0	14	84
Rhode Island:											
Pawtucket .....	2	1	0	0	0	0	0	0	0	4	30
Providence .....	8	8	0	0	0	0	1	0	0	3	127
Connecticut:											
Bridgeport .....	9	5	0	0	0	1	0	0	0	8	38
Hartford .....	6	4	0	0	0	2	0	0	0	10	47
New Haven .....	9	16	0	0	0	2	0	0	0	6	62

1 No estimate made.

## City reports for week ended March 27, 1926—Continued

Div sion, State, and city	Scarlet fever		Smallpox			Tuber- culosis, deaths re- ported	Typhoid fever			Whoop- ing cough, cases re- ported	Deaths, all causes
	Cases, esti- mated expect- ancy	Cases re- ported	Cases, esti- mated expect- ancy	Cases re- ported	Deaths re- ported		Cases, esti- mated expect- ancy	Cases re- ported	Deaths re- ported		
MIDDLE ATLANTIC											
New York:											
Buffalo.....	21	21	0	0	0	15	1	1	1	28	241
New York.....	266	173	1	0	0	139	7	15	2	80	2,460
Rochester.....	17	16	0	0	0	2	0	1	0	18	112
Syracuse.....	15	1	0	0	0	4	1	0	0	42	97
New Jersey:											
Camden.....	4	9	0	0	0	1	0	0	0	0	46
Newark.....	26	30	0	0	0	13	0	0	0	20	146
Trenton.....	3	8	0	0	0	1	0	1	0	2	55
Pennsylvania:											
Philadelphia.....	74	90	0	1	0	41	3	2	1	28	753
Pittsburgh.....	24	63	1	0	0	13	1	0	0	77	266
Reading.....	3	11	0	0	0	0	1	0	0	5	53
EAST NORTH CENTRAL											
Ohio:											
Cincinnati.....	13	31	2	0	0	11	0	0	0	31	196
Cleveland.....	29	110	1	0	0	19	2	0	0	139	328
Columbus.....	9	16	2	1	0	3	0	0	0	5	80
Toledo.....	17	15	6	0	0	6	0	1	0	23	91
Indiana:											
Fort Wayne.....	4	9	1	0	0	2	0	0	0	4	27
Indianapolis.....	9	12	5	13	0	9	0	0	0	46	141
South Bend.....	4	4	1	0	0	2	0	0	0	4	22
Terre Haute.....	3	1	1	1	0	0	0	1	0	2	14
Illinois:											
Chicago.....	121	133	3	0	0	48	2	2	1	49	1,116
Peoria.....	3	6	1	0	0	2	0	0	0	8	32
Springfield.....	1	2	0	0	0	3	0	0	0	16	29
Michigan:											
Detroit.....	90	176	2	0	0	26	1	3	0	47	474
Flint.....	6	22	1	0	0	3	1	0	0	18	40
Grand Rapids.....	8	31	1	0	0	3	0	0	0	50	55
Wisconsin:											
Kenosha.....	2	6	1	0	0	0	0	0	0	13	8
Madison.....	3	17	1	0	0	0	0	0	0	2	-----
Milwaukee.....	29	22	5	0	0	6	0	0	0	54	130
Racine.....	4	7	1	0	0	2	0	0	0	39	13
Superior.....	3	4	4	0	0	0	0	0	0	0	3
WEST NORTH CENTRAL											
Minnesota:											
Duluth.....	5	22	2	0	0	1	1	0	0	13	22
Minneapolis.....	33	75	5	0	0	6	1	0	0	10	104
St. Paul.....	30	74	6	0	0	5	0	0	0	12	71
Iowa:											
Davenport.....	2	2	2	0	-----	-----	0	0	-----	0	-----
Des Moines.....	8	3	3	0	-----	-----	0	0	-----	0	-----
Sioux City.....	2	6	1	9	-----	-----	0	0	-----	1	-----
Waterloo.....	3	5	0	0	-----	-----	0	0	-----	3	-----
Missouri:											
Kansas City.....	10	35	2	3	0	7	1	0	0	44	121
St. Joseph.....	2	6	0	0	0	0	1	0	0	0	27
St. Louis.....	33	178	4	6	0	16	1	1	0	42	274
North Dakota:											
Fargo.....	2	4	0	0	0	0	0	0	0	0	8
Grand Forks.....	0	1	1	0	-----	-----	0	0	-----	0	-----
South Dakota:											
Aberdeen.....	2	5	0	0	-----	-----	0	0	-----	4	-----
Sioux Falls.....	3	3	1	2	0	0	0	0	0	1	5
Nebraska:											
Lincoln.....	3	0	0	1	0	0	0	0	0	24	24
Omaha.....	4	26	6	8	0	3	0	0	0	1	61
Kansas:											
Topeka.....	3	3	1	0	0	1	0	0	0	4	28
Wichita.....	2	1	2	1	0	0	0	0	0	2	28

\* Pulmonary tuberculosis only.

## City reports for week ended March 27, 1926—Continued

Division, State, and city	Scarlet fever		Smallpox			Tuber- culosis, deaths re- ported	Typhoid fever			Whoop- ing cough, cases re- ported	Deaths, all causes
	Cases, estimated expect- ancy	Cases re- ported	Cases, estimated expect- ancy	Cases re- ported	Deaths re- ported		Cases, estimated expect- ancy	Cases re- ported	Deaths re- ported		
SOUTH ATLANTIC											
Delaware:											
Wilmington	2	6	0	0	0	1	0	0	0	4	32
Maryland:											
Baltimore	38	28	1	0	0	20	2	1	1	39	297
Cumberland	0	0	0	0	0	0	0	0	0	0	12
Frederick	1	0	0	0	0	0	0	0	0	0	3
Dist. of Columbia:											
Washington	26	21	2	5	0	11	1	1	1	35	168
Virginia:											
Lynchburg	0	0	0	1	0	3	0	0	0	5	16
Norfolk	1	1	1	0	0	3	0	0	0	2	64
Richmond	2	13	0	0	0	3	0	0	0	0	28
Roanoke	1	0	0	2	0	2	0	0	0	0	0
West Virginia:											
Charleston	1	0	0	2	0	1	0	0	0	18	16
Huntington	1	1	0	1	0	0	0	0	0	0	0
Wheeling	2	7	0	0	0	0	0	0	0	0	30
North Carolina:											
Raleigh	0	0	1	0	0	1	0	0	0	0	15
Wilmington	1	0	0	0	0	1	0	0	0	3	8
Winston-Salem	0	0	5	5	0	0	0	0	0	2	24
South Carolina:											
Charleston	0	1	0	0	0	3	0	0	0	0	24
Columbia	0	0	1	0	0	0	1	0	0	0	0
Greenville	0	0	1	0	0	6	0	0	0	2	8
Georgia:											
Atlanta	5	1	3	7	0	11	1	1	0	2	94
Brunswick	0	0	0	2	0	0	1	1	0	0	4
Savannah	0	0	1	1	0	3	1	0	0	0	26
Florida:											
Tampa	0	1	0	23	0	0	1	4	1	1	50
EAST SOUTH CENTRAL											
Kentucky:											
Covington	2	5	0	0	0	0	0	1	0	1	27
Louisville	5	5	0	0	0	5	1	1	0	0	136
Tennessee:											
Memphis	4	12	2	4	0	3	0	1	0	0	67
Nashville	2	8	2	1	0	10	1	1	0	1	86
Alabama:											
Birmingham	1	2	8	6	0	7	2	0	0	12	81
Mobile	0	0	1	0	0	1	0	0	0	1	22
Montgomery	0	0	0	0	0	0	0	0	0	0	26
WEST SOUTH CENTRAL											
Arkansas:											
Fort Smith	0	0	0	0	0	0	0	0	0	1	0
Little Rock	1	5	0	0	0	2	0	0	0	0	0
Louisiana:											
New Orleans	5	19	3	7	0	17	2	1	2	0	163
Shreveport	1	0	2	2	0	3	0	0	0	4	25
Oklahoma:											
Oklahoma City	2	1	5	0	0	0	0	0	0	0	20
Texas:											
Dallas	2	10	4	8	0	2	0	0	0	11	49
Galveston	0	0	0	10	0	1	0	0	0	0	19
Houston	1	0	0	6	0	3	6	1	0	0	47
San Antonio	0	0	0	0	0	7	1	0	0	0	55
MOUNTAIN											
Montana:											
Billings	1	0	1	0	0	0	0	0	0	2	10
Great Falls	1	1	1	1	0	0	0	0	0	7	5
Helena	0	0	0	0	0	0	0	0	0	0	9
Missoula	1	0	1	0	0	0	0	0	0	6	12
Idaho:											
Boise	1	0	1	2	0	0	0	0	0	1	4



## City reports for week ended March 27, 1926—Continued

Division, State, and city	Cerebrospinal meningitis		Lethargic encephalitis		Pellagra		Poliomyelitis (infantile paralysis)		
	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases, estimated expectancy	Cases	Deaths
<b>SOUTH ATLANTIC</b>									
Maryland:									
Baltimore.....	1	1	0	1	0	0	0	0	0
North Carolina:									
Winston-Salem.....	0	0	0	0	1	1	0	0	0
Florida:									
Tampa.....	1	0	0	0	1	0	0	0	0
<b>EAST SOUTH CENTRAL</b>									
Tennessee:									
Memphis.....	1	0	0	0	0	1	0	0	0
Alabama:									
Birmingham.....	0	0	1	1	1	0	1	1	0
<b>WEST SOUTH CENTRAL</b>									
Texas:									
Dallas.....	0	0	0	1	0	0	0	0	0
San Antonio.....	0	0	0	1	0	0	0	0	0
<b>MOUNTAIN</b>									
Montana:									
Great Falls.....	0	0	0	1	0	0	0	0	0
Missoula.....	0	0	0	0	0	0	0	1	1
Colorado:									
Denver.....	0	0	0	1	0	0	0	0	0
Utah:									
Salt Lake City.....	0	1	0	0	0	0	0	0	0
<b>PACIFIC</b>									
Washington:									
Seattle.....	3	0	0	0	0	0	0	0	0
Spokane.....	1	0	0	0	0	0	0	0	0
California:									
Los Angeles.....	2	0	2	0	0	0	0	0	0

The following table gives the rates per 100,000 population for 103 cities for the five-week period ended March 27, 1926, compared with those for a like period ended March 28, 1925. The population figures used in computing the rates are approximate estimates as of July 1, 1925, and 1926, respectively, authoritative figures for many of the cities not being available. The 103 cities reporting cases had an estimated aggregate population of nearly 30,000,000 in 1925 and nearly 30,500,000 in 1926. The 96 cities reporting deaths had more than 29,250,000 estimated population in 1925 and more than 29,750,000 in 1926. The number of cities included in each group and the estimated aggregate populations are shown in a separate table below:

Summary of weekly reports from cities, February 21 to March 27, 1926—Annual rates per 100,000 population—Compared with rates for the corresponding period of 1925<sup>1</sup>

## DIPHTHERIA CASE RATES

	Week ended—									
	Feb. 28, 1925	Feb. 27, 1926	Mar. 7, 1925	Mar. 6, 1926	Mar. 14, 1925	Mar. 13, 1926	Mar. 21, 1925	Mar. 20, 1926	Mar. 28, 1925	Mar. 27, 1926
103 cities .....	<sup>2</sup> 163	135	156	<sup>3</sup> 124	162	<sup>4</sup> 114	161	<sup>5</sup> 120	162	<sup>6</sup> 131
New England.....	<sup>2</sup> 184	102	225	95	170	78	141	128	115	139
Middle Atlantic.....	177	118	166	111	213	112	196	125	230	142
East North Central.....	111	140	107	123	120	<sup>7</sup> 107	125	<sup>8</sup> 97	<sup>9</sup> 104	101
West North Central.....	289	241	273	<sup>3</sup> 235	195	214	193	144	239	146
South Atlantic.....	108	73	98	109	86	86	129	69	90	<sup>6</sup> 62
East South Central.....	47	52	58	47	37	<sup>10</sup> 28	63	<sup>10</sup> 28	53	<sup>10</sup> 39
West South Central.....	154	116	137	103	180	103	92	103	114	155
Mountain.....	148	200	83	73	102	109	139	73	129	255
Pacific.....	240	216	224	189	188	148	237	283	170	240

## MEASLES CASE RATES

	<sup>2</sup> 342	2,047	403	<sup>3</sup> 1,883	433	<sup>4</sup> 1,693	487	<sup>5</sup> 1,790	489	<sup>6</sup> 1,837
103 cities .....										
New England.....	<sup>2</sup> 569	2,188	633	2,446	522	1,969	700	1,725	728	1,347
Middle Atlantic.....	341	2,040	426	1,840	516	1,713	595	1,855	680	1,835
East North Central.....	589	3,080	738	2,691	695	<sup>7</sup> 2,132	726	<sup>8</sup> 2,008	747	2,088
West North Central.....	70	891	66	<sup>9</sup> 845	72	1,637	90	1,872	86	<sup>10</sup> 2,306
South Atlantic.....	77	3,109	94	2,697	138	2,287	179	2,795	129	<sup>10</sup> 2,750
East South Central.....	42	1,235	79	1,323	11	<sup>10</sup> 1,499	63	<sup>10</sup> 2,408	32	<sup>10</sup> 3,066
West South Central.....	48	9	22	17	84	39	40	43	9	125
Mountain.....	888	82	28	209	740	337	555	328	37	310
Pacific.....	58	162	102	273	105	326	180	321	144	453

## SCARLET FEVER CASE RATES

	<sup>2</sup> 390	285	381	<sup>3</sup> 290	415	<sup>4</sup> 303	411	<sup>5</sup> 301	403	<sup>6</sup> 325
103 cities .....										
New England.....	<sup>2</sup> 543	354	563	347	515	333	525	404	582	355
Middle Atlantic.....	411	187	370	185	437	192	416	202	404	210
East North Central.....	402	339	403	345	460	<sup>7</sup> 370	460	<sup>8</sup> 341	449	407
West North Central.....	711	695	752	<sup>9</sup> 815	697	893	780	800	731	889
South Atlantic.....	192	201	161	163	207	150	138	158	157	<sup>10</sup> 156
East South Central.....	168	171	179	187	326	<sup>10</sup> 149	263	<sup>10</sup> 154	263	<sup>10</sup> 149
West South Central.....	137	112	176	90	101	112	128	138	97	146
Mountain.....	305	100	277	337	194	218	416	246	240	209
Pacific.....	213	813	207	313	218	251	207	280	211	288

## SMALLPOX CASE RATES

	<sup>2</sup> 64	41	60	<sup>3</sup> 50	59	<sup>4</sup> 40	61	<sup>5</sup> 36	56	<sup>6</sup> 33
103 cities .....										
New England.....	<sup>2</sup> 0	0	0	0	0	0	0	0	0	0
Middle Atlantic.....	3	0	1	0	5	0	8	0	7	0
East North Central.....	26	18	40	23	37	<sup>7</sup> 19	30	<sup>8</sup> 26	31	10
West North Central.....	117	77	111	<sup>9</sup> 62	121	67	98	49	131	57
South Atlantic.....	40	66	48	100	56	49	54	60	63	<sup>10</sup> 96
East South Central.....	536	52	599	67	410	<sup>10</sup> 72	583	<sup>10</sup> 88	389	<sup>10</sup> 61
West South Central.....	110	133	70	194	70	142	101	138	101	142
Mountain.....	55	46	46	36	92	18	65	64	18	27
Pacific.....	298	245	196	302	235	262	202	164	182	210

<sup>1</sup> The figures given in this table are rates per 100,000 population, annual basis, and not the number of cases reported. Populations used are estimated as of July 1, 1925, and 1926, respectively.

<sup>2</sup> Hartford, Conn., not included.

<sup>3</sup> Kansas City, Mo., not included.

<sup>4</sup> Madison, Wis., and Covington, Ky., not included.

<sup>5</sup> Racine, Wis., and Covington, Ky., not included.

<sup>6</sup> Norfolk, Va., and Covington, Ky., not included.

<sup>7</sup> Madison, Wis., not included.

<sup>8</sup> Racine, Wis., not included.

<sup>9</sup> Norfolk, Va., not included.

<sup>10</sup> Covington, Ky., not included.

Summary of weekly reports from cities, February 21 to March 27, 1926—Annual rates per 100,000 population—Compared with rates for the corresponding period of 1925—Continued.

## TYPHOID FEVER CASE RATES

	Week ended—									
	Feb. 28, 1925	Feb. 27, 1926	Mar. 7, 1925	Mar. 6, 1926	Mar. 14, 1925	Mar. 13, 1926	Mar. 21, 1925	Mar. 20, 1926	Mar. 28, 1925	Mar. 27, 1926
103 cities.....	13	5	10	10	9	8	11	6	10	8
New England.....	13	5	7	12	5	5	29	0	12	0
Middle Atlantic.....	8	2	10	4	5	7	8	4	7	10
East North Central.....	6	1	8	5	3	7	6	3	3	4
West North Central.....	16	2	6	10	10	4	8	2	6	2
South Atlantic.....	19	11	8	6	23	8	21	21	12	16
East South Central.....	32	10	32	10	32	10	42	22	53	17
West South Central.....	40	30	26	39	26	4	22	9	40	9
Mountain.....	74	18	9	146	18	146	0	9	0	27
Pacific.....	8	8	14	16	14	0	0	5	26	13

## INFLUENZA DEATH RATES

	34	47	30	51	33	71	40	76	31	97
96 cities.....	34	47	30	51	33	71	40	76	31	97
New England.....	39	19	17	12	34	24	29	45	29	69
Middle Atlantic.....	20	39	15	68	24	105	29	95	22	111
East North Central.....	23	14	25	14	31	32	46	66	38	104
West North Central.....	36	23	34	5	32	35	40	31	44	38
South Atlantic.....	46	100	50	47	31	77	50	51	12	82
East South Central.....	116	135	95	259	84	197	110	223	79	254
West South Central.....	140	227	135	132	102	104	73	155	34	123
Mountain.....	18	100	18	109	46	146	46	46	37	64
Pacific.....	25	35	26	32	15	21	11	18	47	14

## PNEUMONIA DEATH RATES

	190	260	196	269	214	325	208	373	197	372
96 cities.....	190	260	196	269	214	325	208	373	197	372
New England.....	235	165	218	187	220	217	204	357	211	430
Middle Atlantic.....	184	316	209	357	213	460	216	503	198	493
East North Central.....	160	179	182	206	226	289	208	357	201	351
West North Central.....	150	106	136	96	169	146	167	144	161	159
South Atlantic.....	275	451	251	340	232	301	275	349	232	330
East South Central.....	268	301	247	311	336	389	263	400	247	477
West South Central.....	203	378	218	387	169	255	169	279	160	175
Mountain.....	259	410	129	237	203	300	166	200	194	191
Pacific.....	145	142	124	117	138	92	116	99	142	117

<sup>1</sup> Hartford, Conn., not included.

<sup>2</sup> Kansas City, Mo., not included.

<sup>3</sup> Madison, Wis., and Covington, Ky., not included.

<sup>4</sup> Racine, Wis., and Covington, Ky., not included.

<sup>5</sup> Norfolk, Va., and Covington, Ky., not included.

<sup>7</sup> Madison, Wis., not included.

<sup>8</sup> Racine, Wis., not included.

<sup>9</sup> Norfolk, Va., not included.

<sup>10</sup> Covington, Ky., not included.

Number of cities included in summary of weekly reports, and aggregate population of cities in each group, approximated as of July 1, 1925 and 1926, respectively

Group of cities	Number of cities reporting cases	Number of cities reporting deaths	Aggregate population of cities reporting cases		Aggregate population of cities reporting deaths	
			1925	1926	1925	1926
Total.....	103	96	29,944,996	30,473,120	29,251,658	29,764,201
New England.....	12	12	2,176,124	2,206,124	2,176,124	2,206,124
Middle Atlantic.....	10	10	10,346,970	10,476,970	10,346,970	10,476,970
East North Central.....	16	16	7,481,656	7,655,436	7,481,656	7,655,436
West North Central.....	14	11	2,594,962	2,634,682	2,461,380	2,499,036
South Atlantic.....	21	21	2,716,070	2,776,070	2,716,070	2,776,070
East South Central.....	7	7	993,103	1,004,953	993,103	1,004,953
West South Central.....	8	6	1,184,087	1,212,087	1,078,198	1,103,695
Mountain.....	9	9	563,912	572,773	563,912	572,773
Pacific.....	6	4	1,888,142	1,934,084	1,434,245	1,469,144

# FOREIGN AND INSULAR

## THE FAR EAST

*Report for week ended March 13, 1926.*—The following report for the week ended March 13, 1926, was transmitted by the far eastern bureau of the health section of the League of Nations' secretariat, located at Singapore, to the headquarters at Geneva:

Port	Plague		Cholera		Small-pox		Port	Plague		Cholera		Small-pox	
	Cases	Deaths	Cases	Deaths	Cases	Deaths		Cases	Deaths	Cases	Deaths	Cases	Deaths
Calcutta	0	0	55	65	46		Osaka	0	0	0	0	4	0
Bombay	2	0	0	28	18		Niigata	0	0	0	0	0	0
Madras	0	0	12	21	6		Tsuruga	0	0	0	0	0	0
Rangoon	11	0	0	6	3		Hakodate	0	0	0	0	0	0
Karschi	0	0	0	5	2		Keelung	0	0	0	0	0	0
Negapatnam	0	0	1	1	1		Fusan	0	0	0	0	0	0
Colombo	1	1	0	0	0		Chemulpo	0	0	0	0	0	0
Basra	0	0	0	1	1		Dairen	0	0	0	0	3	1
Singapore	0	0	0	0	0		Adelaide	0	0	0	0	0	0
Port Swettenham	0	0	0	0	0		Brisbane	0	0	0	0	0	0
Penang	0	0	0	0	0		Fremantle	0	0	0	0	0	0
Batavia	0	0	0	0	0		Melbourne	0	0	0	0	0	0
Sorabaya	0	0	0	0	0		Sydney	0	0	0	0	0	0
Samarang	0	0	0	0	0		Rockhampton	0	0	0	0	0	0
Cheribon	3	3	0	0	0		Townsville	0	0	0	0	0	0
Belawan Deli	0	0	0	0	0		Port Darwin	0	0	0	0	0	0
Palembang	0	0	0	0	0		Broome	0	0	0	0	0	0
Sabang (Rhio)	0	0	0	0	0		Port Moresby	0	0	0	0	0	0
Makassar	0	0	0	0	0		Auckland	0	0	0	0	0	0
Menada	0	0	0	0	0		Wellington	0	0	0	0	0	0
Banjarasin	0	0	0	0	0		Christchurch	0	0	0	0	0	0
Belik-Papan	0	0	0	0	0		Invercargill	0	0	0	0	0	0
Pontianak (Borneo)	0	0	0	0	0		Noumea (New Caledonia)	0	0	0	0	0	0
Sandakan (North Borneo)	0	0	0	0	0		Honolulu	0	0	0	0	0	0
Kuching (Sarawak)	0	0	0	0	7		Suez	0	0	0	0	0	0
Timor Dilly	0	0	0	0	0		Tor (Quarantine Station)	0	0	0	0	0	0
Manila	0	0	0	0	0		Alexandria	1	1	0	0	0	0
Iloilo	0	0	0	0	0		Port Said	0	0	0	0	0	0
Jolo	0	0	0	0	0		Mombasa (Kenya)	0	0	0	0	0	0
Cebu	0	0	0	0	0		Zanzibar	0	0	0	0	0	0
Zamboanga	0	0	0	0	0		Massowah	0	0	0	0	0	0
Bangkok	3	3	71	58	6		Djibuti	0	0	0	0	0	0
Saigon and Cholon	0	0	0	0	0		Berbera	0	0	0	0	0	0
Haiphong	0	0	0	0	0		Mozambique	0	0	0	0	0	0
Tourane	0	0	0	0	0		Lourenco Marques	0	0	0	0	0	0
Hongkong	0	0	0	1	1		Durban	0	0	0	0	0	0
Shanghai	0	0	6	0	14		East London	0	0	0	0	0	0
Amoy	0	0	0	4	1		Port Elizabeth	0	0	0	0	0	0
Nagasaki	0	0	0	0	0		Capetown	0	0	0	0	0	0
Yokohama	0	0	0	16	0		Port Louis (Mauritius)	0	0	0	0	0	0
Simonoseki	0	0	0	0	0		Seychelles	0	0	0	0	0	0
Moji	0	0	0	1	0								
Kobe	0	0	0	0	0								



## CANADA

*Communicable diseases—Week ended March 27, 1926.*—The Canadian Ministry of Health reports certain communicable diseases in seven Provinces of Canada for the week ended March 27, 1926, as follows:

Disease	Nova Scotia	New Brunswick	Quebec	Ontario	Manitoba	Saskatchewan	Alberta	Total
Influenza.....	11	-----	-----	-----	2	-----	-----	13
Lethargic encephalitis.....	-----	-----	-----	1	-----	-----	-----	1
Smallpox.....	-----	-----	-----	28	2	5	1	36
Typhoid fever.....	1	-----	11	9	2	-----	2	25

## CUBA

*Communicable diseases—Provinces—November and December, 1925.*—Cases of diphtheria and typhoid fever were notified in the Provinces of Cuba for the months of November and December, 1925, as follows:

Province	November		December	
	Diphtheria	Typhoid fever	Diphtheria	Typhoid fever
Pinar del Rio.....	1	16	-----	8
Habana.....	23	28	12	15
Matanzas.....	1	6	3	-----
Santa Clara.....	8	17	6	10
Camaguary.....	1	6	-----	2
Oriente.....	4	13	9	9
Total.....	38	86	30	44

## ECUADOR

*Communicable diseases—Quito—February, 1926.*—During the month of February, 1926, communicable diseases were reported at Quito, Ecuador, as follows:

Disease	Cases	Deaths	Disease	Cases	Deaths
Diphtheria.....	1	1	Tuberculosis (pulmonary).....	45	10
Dysentery.....	70	7	Typhoid fever.....	32	5
Erysipelas.....	4	-----	Paratyphoid fever.....	1	-----
Leprosy.....	1	-----			

These data cover only cases reported to the bureau of health, or located by the bureau. Three cases of typhoid fever were treated outside the lazaretto and ended fatally. Of the 29 cases treated at the lazaretto only 2 terminated fatally.

## ESTHONIA

*Communicable diseases—January, 1926.*—During the month of January, 1926, communicable diseases were reported in the Republic of Esthonia as follows:

Disease	Cases	Disease	Cases
Diphtheria.....	75	Scarlet fever.....	217
Leptosy.....	1	Tuberculosis.....	154
Measles.....	8	Typhoid fever.....	62
Paratyphoid fever.....	6	Typhus fever.....	6

## HAWAII TERRITORY

*Plague—Honokaa.*—Under date of March 18, 1926, two cases of human plague and one death from a disease suspected to be plague were reported at Honokaa, Territory of Hawaii.

## IRELAND (IRISH FREE STATE)

*Typhus fever—Counties Kerry and Wexford.*—During the week ended March 13, 1926, one case of typhus fever was reported at Listowel, County Kerry, and one case at Gorey, County Wexford, Irish Free State, Ireland.

## MEXICO

*Typhus fever in Mexico City—Correction.*—The item appearing in the PUBLIC HEALTH REPORTS for January 22, 1926, stating that there were 111 deaths from typhus fever in the municipalities in the Federal District of Mexico during the week ended December 19, 1925, was erroneous. The number of deaths was 11.

## CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER

The reports contained in the following tables must not be considered as complete or final as regards either the lists of countries included or the figures for the particular countries for which reports are given.

Reports Received During Week Ended April 16, 1926<sup>1</sup>

## CHOLERA

Place	Date	Cases	Deaths	Remarks
India.....	Jan. 24-30.....	2,861	1,769	
Calcutta.....	Feb. 14-27.....	104	89	
Madras.....	Feb. 14-Mar. 6.....	18	14	

## PLAGUE

Place	Date	Cases	Deaths	Remarks
Azores:				
St. Michaelis.....	Jan. 17-30.....	4	2	
British East Africa:				
Kenya—				
Kisumu.....	Feb. 7-27.....	2	3	
Uganda Protectorate.....	Dec. 1-31.....	130	113	

<sup>1</sup> From medical officers of the Public Health Service, American consuls and other sources.

# **CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued**

## **Reports Received During Week Ended April 16, 1926—Continued**

### **PLAGUE—Continued**

Place	Date	Cases	Deaths	Remarks
Celebes:				
Makassar.....	Jan. 27-Feb. 2.....	3	3	One plague-infected rodent.
Ceylon:				
Colombo.....	Feb. 21-27.....	3	2	
Egypt:				
Alexandria.....	Mar. 10.....	1	1	
Province—				
Gharbia.....	Mar. 9.....	1	1	
Mina.....	Mar. 4.....	1	1	
Hawaii Territory:				
Honokaa.....	Mar. 16.....	2	1	One death suspected plague.
India:				
Jan. 24-30.....		3,005	2,466	
Bombay.....	Feb. 14-20.....	5	6	
Karachi.....	Feb. 21-Mar. 6.....	3	3	
Madras Presidency.....	Jan. 24-Feb. 13.....	466	275	
Rangoon.....	Feb. 14-27.....	24	19	
Iraq:				
Bagdad.....	Jan. 31-Feb. 20.....	31	18	
Java:				
Batavia.....	Feb. 13-19.....	48	47	
Cherihon.....	Jan. 30-Feb. 6.....	1	1	
Surabaya.....	Jan. 21-Feb. 13.....	7	7	

### **SMALLPOX**

Algeria:				
Algiers.....	Mar. 1-10.....	9	—	
Arabia:				
Aden.....	Feb. 28-Mar. 6.....	1	—	
Brazil:				
Rio de Janeiro.....	Feb. 6-20.....	64	31	
Canada:				
Alberta.....	Mar. 21-27.....	1	—	
British Columbia—				
Victoria.....	do.....	2	—	Mar. 21-27, 1926: Cases, 2.
Manitoba.....				
Winnipeg.....	Mar. 21-27.....	1	—	Mar. 21-27, 1926: Cases, 28.
Ontario.....				
Toronto.....	Mar. 14-20.....	1	—	
Saskatchewan.....	do.....	5	—	
China:				
Foochow.....	Feb. 7-13.....	—	—	Present.
Hongkong.....	do.....	1	—	
Manchuria—				
Dairen.....	Feb. 1-14.....	17	4	Cases, foreign, in International Settlement and foreign concession; deaths, foreign and Chinese.
Shanghai.....	Feb. 21-27.....	5	9	
France:				
Paris.....	Mar. 1-10.....	5	1	
Great Britain:				
England and Wales.....	Mar. 14-20.....	189	—	
Sheffield.....	Mar. 7-20.....	3	—	
Greece:				
Kalavryta.....	Mar. 1-7.....	1	—	Originating from Patras.
India:				
Jan. 24-30.....		6,457	1,587	
Bombay.....	Feb. 14-20.....	12	5	
Calcutta.....	Feb. 14-27.....	90	55	
Karachi.....	Feb. 21-Mar. 6.....	20	4	
Madras.....	Feb. 14-Mar. 6.....	30	5	
Rangoon.....	Feb. 14-27.....	32	3	
Iraq:				
Bagdad.....	Feb. 8-20.....	4	3	
Basra.....	Dec. 27-Feb. 13.....	40	32	
Japan:				
Yokohama.....	Feb. 22-Mar. 7.....	21	4	
Java:				
Cherihon.....	Jan. 31-Feb. 6.....	—	1	
Pontianak.....	do.....	—	1	
Surabaya.....	Jan. 24-Feb. 13.....	30	13	
Mexico:				
Aguascalientes.....	Mar. 21-27.....	—	4	Including municipalities in Federal District.
Guadalajara.....	Mar. 23-29.....	—	2	
Mexico City.....	Mar. 7-13.....	1	—	
Netherlands:				
The Hague.....	Feb. 28-Mar. 6.....	1	—	

# CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued

## Reports Received During Week Ended April 16, 1926—Continued

### SMALLPOX—Continued

Place	Date	Cases	Deaths	Remarks
Portugal: Oporto.....	Feb. 28-Mar. 6.....	1	—	
Spain: Valencia.....	Mar. 6-12.....	1	—	
Switzerland: Lucerne.....	Jan. 1-31.....	5	—	

### TYPHUS FEVER

Estonia.....	Jan. 1-31.....	6	—	
Ireland: Irish Free State— Kerry County— Listowel.....	Mar. 7-13.....	1	—	Rural district.
Wexford County— Gorey.....	.....do.....	1	—	Do.
Union of South Africa: Natal— Durban.....	Feb. 20-27.....	2	—	
Transvaal— Johannesburg.....	Mar. 1-6.....	2	—	

## Reports Received from December 26, 1925, to April 9, 1926<sup>1</sup>

### CHOLERA

Place	Date	Cases	Deaths	Remarks
Chosen.....	October-November, 1925.....	12	5	
French Settlements in India.....	Dec. 1-31.....	880	712	
India: Calcutta.....	Nov. 1-23.....	101	89	Oct. 18, 1925, to Jan. 2, 1926: Cases, 21,716; deaths, 12,371. Jan. 3-23, 1926. Cases, 12,045; deaths, 6,519.
Do.....	Dec. 6-26.....	—	54	
Do.....	Dec. 27-Jan. 16.....	—	41	
Do.....	Jan. 24-Feb. 13.....	103	90	
Madras.....	Nov. 15-Jan. 2.....	174	70	
Do.....	Jan. 3-Feb. 13.....	75	46	
Rangoon.....	Nov. 8-Dec. 5.....	4	4	
Do.....	Jan. 24-Feb. 13.....	5	3	
Indo-China Province— Annam.....	Sept. 1-30.....	2	2	September, 1925: Cases, 9; deaths, 5. September, 1924: Cases, 7; deaths, 4. (European cases, 2.) Including 100 square kilometers of surrounding country.
Cochin China.....	do.....	5	3	
Saigon.....	Jan. 4-17.....	2	2	
Tonkin.....	September, 1925.....	2	—	
Japan.....	Aug. 30-Oct. 17.....	409	—	
Do.....	Oct. 25-Dec. 26.....	113	—	
Philippine Islands: Manila.....	Nov. 9-Jan. 3.....	15	10	
Do.....	Jan. 4-Feb. 13.....	—	26	
Province— Bataan.....	Nov. 30-Dec. 28.....	29	25	
Do.....	Jan. 2-16.....	1	1	
Batangas.....	Jan. 24-30.....	3	3	
Bulacan.....	Oct. 18-Nov. 7.....	92	64	
Do.....	Nov. 23-Dec. 31.....	200	88	
Do.....	Jan. 2-30.....	6	6	
Laguna.....	Nov. 23-Dec. 26.....	18	14	
Do.....	Jan. 24-30.....	4	4	
Nueva Ecija.....	do.....	6	2	
Pampanga.....	Nov. 1-7.....	1	1	
Do.....	Nov. 23-Dec. 31.....	113	85	
Do.....	Jan. 2-30.....	27	25	
Rizal.....	Sept. 27-Nov. 21.....	75	21	
Do.....	Dec. 21-30.....	14	11	
Remblon.....	Dec. 7-13.....	23	12	

<sup>1</sup> From medical officers of the Public Health Service, American consuls, and other sources.

# CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued

Reports Received from December 26, 1925, to April 9, 1926—Continued

## CHOLERA—Continued

Place	Date	Cases	Deaths	Remarks
Russia.....	May-June.....	7	-----	
Do.....	July-August.....	4	-----	
Siam:				
Bangkok.....	Oct. 4-Nov. 14.....	168	68	
Do.....	Nov. 22-Dec. 28.....	270	149	
Do.....	Dec. 27-Feb. 13.....	187	125	
On vessel:				
Steamship.....	Oct. 3.....	9	-----	Arrived at Bangkok, Siam: Cases in cooke passengers.

## PLAGUE

Argentina.....					
Buenos Aires.....	Jan. 24-30.....	1	-----		Jan. 24-30, 1926: 6 cases, occurring in interior Provinces of Salta and Santa Fe.
Brazil:					
Bahia.....	Nov. 8-Dec. 23.....	3	1		
Do.....	Dec. 27-Jan. 30.....	4	2		
Santos.....	Dec. 8-21.....	-----	2		
Sao Paulo.....	Reported Mar. 25.....	4	1		
British East Africa:					
Kenya—					
Kisumu.....	Nov. 22-Dec. 5.....	1	2		
Do.....	Jan. 31-Feb. 6.....	2	-----		
Uganda Protectorate.....	September-November.....	338	308		
Canary Islands:					
La Laguna.....	Dec. 24.....	3	2		
Las Palmas.....	do.....	1	-----		
Do.....	Jan. 7.....	1	1		
Santa Cruz de Tenerife.....	Dec. 18-27.....	3	-----		
Do.....	Dec. 28-Feb. 1.....	3	-----		
Celebes:					
Makassar.....	Dec. 29-Jan. 28.....	9	9		Netherlands East Indies.
Ceylon:					
Colombo.....	Nov. 15-Dec. 5.....	3	3		1 plague rodent.
Do.....	Dec. 27-Jan. 16.....	2	-----		
Do.....	Jan. 24-Feb. 13.....	1	1		Feb. 14-20, 1926: Two plague rodents.
China:					
Nanking.....	Nov. 15-Jan. 23.....	-----	-----		Prevalent.
Ecuador:					
Eloy Alfaro.....	Jan. 1-15.....	1	-----		
Guayaquil.....	Nov. 1-Dec. 31.....	31	12		
Do.....	Jan. 1-31.....	34	14		Rats taken, Nov. 1-Dec. 31, 1925, 49,870; rats found infected, 281. Rats taken, Jan. 1-Feb. 23, 1926, 44,253; rats found infected, 406.
Recreo (country estate).....	do.....	1	-----		Jan. 1-Dec. 9, 1925: Cases, 138. Corresponding period, 1924: Cases, 365.
Egypt.....					
Beni Suef.....	Nov. 18.....	1	1		
Fayoum Province.....	Dec. 3-9.....	1	1		
Greece:					
Athens.....	Nov. 1-30.....	18	4		Including Piræus.
Do.....	Jan. 1-31.....	14	3		
Herakleion.....	Feb. 4.....	1	-----		On island of Crete.
Patras.....	Nov. 13-Dec. 12.....	4	1		
Hawaii Territory:					
Pauilo.....					Jan. 29, 1926: Plague-infected rat found in vicinity.
India.....					Oct. 18, 1925, to Jan. 2, 1926: Cases, 15,135; deaths, 10,677. Jan. 3-23, 1926: Cases, 7,463; deaths, 4,873.
Bombay.....	Dec. 6-12.....	1	1		
Do.....	Jan. 3-9.....	2	2		
Calcutta.....	Dec. 6-12.....	1	1		
Karachi.....	Nov. 1-Dec. 19.....	4	3		
Madras.....	Oct. 25-Nov. 7.....	75	41		
Do.....	Nov. 15-21.....	35	22		
Do.....	Dec. 20-26.....	108	64		
Do.....	Jan. 3-9.....	135	83		
Do.....	Jan. 17-23.....	113	73		
Rangoon.....	Oct. 25-Dec. 26.....	23	15		
Do.....	Dec. 27-Feb. 13.....	33	30		
Indo-China.....					
Province—					September, October, 1925: Cases, 25; deaths, 23.
Cambodia.....	Sept. 1-30.....	11	11		
Cochin China.....	September-October.....	14	12		

# CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued

Reports Received from December 26, 1925, to April 9, 1926—Continued

## PLAGUE—Continued

Place	Date	Cases	Deaths	Remarks
Iraq:				
Bagdad	Dec. 13-Jan. 2	7	3	
Do	Jan. 10-30	12	8	
Java:				
Batavia	Oct. 24-Nov. 6	94	89	Province.
Do	Nov. 14-Jan. 1	315	297	
Do	Jan. 2-Feb. 12	321	310	
Cheribon	Sept. 27-Oct. 17	166	166	
Do	Nov. 15-Dec. 26	198	198	
Do	Jan. 3-23	7	7	
Djakarta	Oct. 20-Nov. 9	—	—	Epidemic in 1 locality.
Kediri	Dec. 7	—	—	Do.
Koenigian	Dec. 27-Jan. 16	—	114	
Pekalongan	Sept. 27-Oct. 17	42	42	
Do	Nov. 8-Dec. 26	172	172	
Rembang	Oct. 20	—	—	Do.
Surabaya	Oct. 11-Dec. 26	59	59	
Do	Dec. 27-Jan. 9	16	16	
Do	Jan. 17-23	5	5	
Tegal	Sept. 27-Oct. 17	6	6	
Do	Nov. 8-Dec. 26	31	31	
Madagascar:				Nov. 1-December, 1925: Cases, 632; deaths, 593. Jan. 1-15, 1926: Cases, 161; deaths, 151.
Province—				Bubonic, pneumonic, and septiceemic.
Ambositra	Dec. 16-31	9	7	
Do	Jan. 1-15	2	2	
Itasy	Sept. 16-Oct. 31	20	20	
Do	Nov. 16-Dec. 16	34	34	
Do	Jan. 1-15	29	29	
Moramanga	Sept. 16-Dec. 31	49	48	
Do	Jan. 1-15	15	15	
Tananarive	Sept. 16-Nov. 30	368	341	
Do	Dec. 16-31	152	143	
Do	Jan. 1-15	111	100	
Town—				
Fort Dauphin	Sept. 16-Nov. 30	6	3	
Tamatave (port)	Sept. 16-30	3	2	
Do	Oct. 16-Nov. 30	9	9	
Tananarive	Sept. 16-30	2	2	
Do	Nov. 1-30	11	11	
Do	Jan. 1-15	4	4	
Mauritius Island	Sept. 20-Dec. 26	21	18	
Pamplemousses	Oct. 1-Nov. 30	3	2	
Port Louis	do	4	1	
Riviere du Rempart	October	2	—	
Persia:				
Teheran	Oct. 21-Nov. 21	—	12	
Peru				January, 1926: Cases, 196; deaths, 67. Reported in 26 localities.
Huacho	Jan. 26	15	—	Port 60 miles north of Callao.
Lima	Jan. 1-31	20	—	In hospital. Some cases in Province
Mollendo	do	—	—	12 or 15 cases reported unofficially.
Russia	May-June	67	—	
Do	July-October	166	—	
Senegal	September-October	45	25	
Siam	Aug. 23-Dec. 26	65	53	
Bangkok	Nov. 15-23	3	3	
Do	Jan. 3-30	38	23	
Do	Feb. 7-13	5	4	
Straits Settlements:				
Singapore	Nov. 1-Dec. 5	8	8	
Do	Jan. 3-9	2	2	
Syria:				
Beirut	Nov. 11-20	1	—	
Do	Jan. 21-31	1	—	
Union of South Africa:				
Cape Province—				
Kimberley district	Dec. 13-19	1	—	European.
Middleburg district	Dec. 6-12	1	—	Native. On farm.
Steynsburg district	Nov. 15-21	1	—	
Orange Free State—				
Boshof district	Nov. 29-Dec. 5	1	1	In native.
Betherville district	Dec. 6-12	1	1	Native. On farm.

# CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued

Reports Received from December 26, 1925, to April 9, 1926—Continued

## PLAGUE—Continued

Place	Date	Cases	Deaths	Remarks
On vessel: Steamship Cid.....				Jan. 29, 1926. At Buenaventura, Colombia. Rat was killed while jumping ashore from vessel.

## SMALLPOX

Algeria:				
Algiers.....	Nov. 21-Dec. 31.....	177		
Do.....	Jan. 1-10.....	61		
Do.....	Jan. 21-Feb. 28.....	55		
Arabia:				
Aden.....	Nov. 29-Dec. 5.....	1		Imported.
Do.....	Jan. 10-Feb. 27.....	9	1	
Argentina:				
Rosario.....	October.....			1
Australia:				
Queensland—				
Brisbane.....	Dec. 9-15.....	1		
Bahamas.....	Feb. 23.....			In Nassau district. Stated to have been imported.
Brazil:				
Manaos.....	Dec. 1-31.....		12	
Do.....	Jan. 31-Feb. 20.....		6	
Para.....	Jan. 10-Mar. 6.....	28	6	
Rio de Janeiro.....	Nov. 1-28.....	134	72	
Do.....	Dec. 6-26.....	65	26	
Do.....	Dec. 27-Feb. 6.....	131	100	
British East Africa:				
Kenya—				
Mombasa.....	Nov. 15-Dec. 19.....	14	0	
Do.....	Dec. 27-Jan. 2.....	1		From mainland.
Uganda Protectorate.....	Sept. 1-Oct. 31.....	8	4	
British South Africa:				
Northern Rhodesia.....	Jan. 5-11.....	2		
Southern Rhodesia.....	Nov. 13-Dec. 23.....	3		
Canada.....				Sept. 13-Jan. 2. In 7 Provinces, 186 cases. Jan. 3-Feb. 27, 1926: Cases, 277
Alberta.....				Jan. 3-Mar. 20, 1926: Cases, 63.
Calgary.....	Dec. 13-19.....	1		From Drumheller, vicinity of Calgary.
British Columbia—				
Vancouver.....	Jan. 4-10.....	1		
Manitoba.....				Jan. 3-Mar. 20, 1926: Cases, 38.
Winnipeg.....	Dec. 13-19.....	2		
Do.....	Jan. 3-Mar. 20.....	11		
New Brunswick—				
Northumberland.....	Dec. 6-13.....	1		
Ontario.....				Dec. 1-31, 1925: Cases, 32. Jan. 3-Mar. 20, 1926: Cases, 170.
Admaston.....	Jan. 1-Feb. 1.....	16		Township.
Alice and Frasca.....	Feb. 1-23.....	6		Do.
King.....	do.....	7		Do.
Wilnot.....	do.....	6		Do.
Belleville.....	do.....	4		
Kingston.....	Mar. 8-14.....	1		
Kitchener.....	do.....	26		
North Bay.....	Feb. 14-Mar. 14.....	7		
Ottawa.....	Dec. 6-12.....	2		
Do.....	Jan. 3-Feb. 6.....	2		
Sarnia.....	Mar. 14-20.....	1		
Toronto.....	Dec. 27-Jan. 2.....	1		
Do.....	Jan. 3-Feb. 23.....	25		
Trenton.....	do.....	15		
Saskatchewan.....				Jan. 3-Mar. 20, 1926: Cases, 67.
Moose Jaw.....	do.....	2		
Regina.....	Jan. 24-Mar. 13.....	3		
Saskatoon.....	Feb. 14-20.....	1		
Ceylon:				
Colombo.....	Dec. 6-12.....	1		Port case.
Do.....	Jan. 3-Feb. 6.....	5		
Chile:				
Punta Arenas.....	Dec. 13-26.....		8	
Do.....	Dec. 27-Jan. 2.....		4	

# CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued

Reports Received from December 26, 1925, to April 9, 1926—Continued

## SMALLPOX—Continued

Place	Date	Cases	Deaths	Remarks
<b>China:</b>				
Amoy	Oct. 25-Dec. 19		1	
Do	Jan. 10-Feb. 13		9	
Antung	Dec. 7-20	2		Port case.
Chungking	Nov. 15-Feb. 20			Do.
Foochow	Nov. 1-Feb. 6			Do.
Hankow	Nov. 14-Dec. 26	4		
Do	Jan. 10-Feb. 20	2		
Hongkong	Nov. 22-Dec. 26	4		
Do	Jan. 3-Feb. 6	7	3	
<b>Manchuria:</b>				
An-shan	Dec. 6-12	1		
Do	Jan. 10-Feb. 13	6		South Manchurian Railway.
Changchun	Jan. 10-Feb. 27	20		Do.
Dairen	Oct. 19-Dec. 27	73	15	
Do	Dec. 28-Jan. 31	40	11	
Fushun	Jan. 17-23	1		Do.
Harbin	Jan. 1-Feb. 18	2		
Kai-yuan	Jan. 10-30	4		Do.
Kungchuling	Jan. 31-Feb. 20	2		
Lio-yang	Jan. 17-23	1		Do.
Mukden	Oct. 24-Nov. 15	1		Do.
Do	Jan. 24-Feb. 27	4		Do.
Tieh-ling	do	2		
Nanking	Nov. 21-Dec. 26			Present.
Do	Dec. 27-Feb. 13			Do.
Shanghai	Oct. 25-Jan. 2	37	36	
Do	Jan. 3-Feb. 20	46	94	Cases, foreign only.
Swatow	Nov. 22-Feb. 20			Prevalent.
Tientsin	Nov. 1-Dec. 19	2		
Do	Jan. 23-30	1		
<b>Chosen:</b>				
Seishin	Jan. 1-31	5	2	
<b>Egypt:</b>				
Alexandria	Dec. 3-31	5	2	
Do	Jan. 8-14	2	1	
Do	Jan. 29-Feb. 18	10	1	
<b>Esthonia:</b>				
France				November, 1925: Cases, 3.
Havre	Jan. 25-31		9	September-December, 1925: Cases, 253.
Gold Coast	September, December.	58	5	
<b>Great Britain:</b>				
England and Wales				Nov. 15-Dec. 26, 1925: Cases, 760.
Hull	Dec. 27-Jan. 23	29		Dec. 27-Mar. 13, 1926: Cases, 3, 114.
Do	Feb. 7-Mar. 13	8		
Leeds	Jan. 14-Feb. 6	4		
London	Jan. 31-Feb. 6		1	
Newcastle-on-Tyne	Nov. 29-Dec. 19	6		
Do	Dec. 27-Mar. 13	32	1	
Nottingham	Nov. 22-Dec. 26	9		
Do	Dec. 27-Feb. 27	3		
Sheffield	Nov. 22-Dec. 12	7		
Do	Dec. 20-26	3		
Do	Dec. 27-Mar. 6	15		
South Shields	Feb. 9			Reported present in severe form.
<b>Greece:</b>				
Athens	Nov. 1-Dec. 31	18	1	Oct. 1-31, 1925: Cases, 16.
Do	Jan. 1-Feb. 23	50	3	
Saloniki	Feb. 16-22		1	
<b>India:</b>				
Bombay	Nov. 8-Dec. 26	26	20	Oct. 18-Dec. 26, 1925: Cases, 19,472; deaths, 4,440.
Do	Dec. 27-Feb. 13	101	53	Dec. 27, 1925-Jan. 23, 1926: Cases, 23,375; deaths, 8,482.
Calcutta	Nov. 29-Dec. 26	48	25	
Do	Dec. 27-Feb. 13	280	170	
Karachi	Nov. 1-21	23		
Do	Nov. 29-Dec. 5	4	2	
Do	Dec. 13-19	3		
Do	Dec. 29-Feb. 20	59	20	
Madras	Jan. 24-30	4	1	
Rangoon	Oct. 25-Nov. 28	3		
Do	Dec. 6-26	4	1	
Do	Dec. 27-Jan. 16	13	1	
Do	Jan. 24-30	6		
Do	Mar. 31-Feb. 13	24	6	



# **CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued**

**Reports Received from December 26, 1925, to April 9, 1926—Continued**

## **SMALLPOX—Continued**

Place	Date	Cases	Deaths	Remarks
Indo-China				September-October, 1925: Cases, 204; deaths, 62.
Province—				
Annam	Sept. 1-Oct. 31	50	23	
Cambodia	do.	72	30	
Cochin China	do.	61	30	
Saigon	Dec. 21-27	2	1	
Do.	Jan. 1-Feb. 7	6		
Tonkin	Dec. 2-Jan. 2	22		Including 100 kilometers of surrounding country.
Iraq:				
Bagdad	Nov. 1-Dec. 26	19	15	Sept. 6-Oct. 17, 1925: Cases, 81 deaths, 40.
Do.	Dec. 27-Jan. 30	11	4	
Italy				Aug. 2, 1925; Jan. 2, 1926: Cases, 52. Jan. 3-10, 1925: Cases, 12.
Catania	Feb. 15-28	1	1	
Genoa	Jan. 21-Feb. 10	4		
Rome	Oct. 12-25	1		
Jamaica				Nov. 29-Dec. 24, 1925: Cases, 95. Dec. 27, 1925-Feb. 27, 1926: Cases, 250. Reported as alarmism.
Kingston	Nov. 29-Dec. 28	43		Reported as alarmism.
Do.	Dec. 27-Jan. 30	49		Do.
Japan:				
Nagasaki	Feb. 15-21	1		
Taiwan	Nov. 11-Dec. 10	3		
Yokohama	Dec. 14-20	1		
Do.	Feb. 23	7		
Java:				
Batavia	Oct. 24-30	1		
Do.	Nov. 14-Dec. 25	7		
Buitenzorg	Nov. 29-Dec. 5	1		
Cheribon	Nov. 8-Dec. 12	2		
Kraksaan	Oct. 11-17	11		
Malang	Oct. 11-Jan. 16	18		
North Bantam	Oct. 4-17	4		
Pekalongan	Oct. 25-31	1		
Probolingó	Oct. 11-17	1		
Surabaya	Oct. 11-Dec. 28	633	104	
Do.	Dec. 27-Jan. 23	101	27	
South Bantam	Oct. 11-17	1		
Tegal	Oct. 4-10	9	1	
Latvia				December, 1925: Cases, 3.
Malta	Nov. 1-Dec. 21	21	3	
Do.	Jan. 1-Feb. 28	20		
Mexico				July-September, 1925: Deaths, 1,157.
Aguascalientes	Dec. 13-Jan. 2	4	3	
Do.	Jan. 3-30		7	
Do.	Feb. 14-Mar. 20		8	
Durango	Dec. 1-31		1	
Do.	Jan. 1-31		2	
Guadalajara	Dec. 27-Mar. 22		13	
Mexico City	Nov. 28-Dec. 5	1		Including municipalities in Federal District.
Do.	Jan. 3-Feb. 6	4		Do.
San Luis Potosí	Jan. 17-Mar. 20		53	
Tampico	Dec. 21-Jan. 2	1	1	
Do.	Jan. 2-Mar. 10	8		
Torreón	Nov. 1-Dec. 31		51	
Do.	Jan. 1-Feb. 28		54	
Netherlands:				
The Hague	Jan. 30-Feb. 6	1	1	
Nigeria				August-November, 1925: Cases, 347; deaths, 5.
Palestine:				
Hebron	Jan. 26-Feb. 1	2		
Tiberias	Feb. 9-15	1		
Persia:				
Teheran	July 23-Dec. 22		775	
Peru:				
Arequipa	Oct. 1-Dec. 31		2	
Poland				Nov. 1-28, 1925: Cases, 9.
Portugal:				
Lisbon	Oct. 4-31	124		
Do.	Nov. 16-Dec. 27		60	
Do.	Nov. 14-Dec. 28	187		
Do.	Dec. 27-Feb. 28	87	29	
Oporto	Nov. 22-Dec. 19	2	3	
Do.	Dec. 27-Feb. 18	2	1	
Rumania	August-October	3		

# CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued

Reports Received from December 26, 1925, to April 9, 1926—Continued

## SMALLPOX—Continued

Place	Date	Cases	Deaths	Remarks
Russia.....	July-October.....	1,503	-----	May-June, 1925: Cases, 2,333.
Siam.....	Dec. 20-25.....	3	1	July 12-Sept. 5, 1925: Cases, 21;
Bangkok.....	Dec. 26-Feb. 13.....	51	17	deaths, 6.
Sierra Leone:				
Konno district.....	Dec. 16-31.....	5	-----	
Spain:				
Madrid.....	Year 1925.....	-----	18	
Do.....	Jan. 1-31.....	-----	1	
Malaga.....	Nov. 29-Dec. 5.....	-----	2	
Do.....	Dec. 27-Jan. 2.....	-----	1	
Valencia.....	Dec. 20-26.....	1	-----	
Do.....	Dec. 27-Jan. 2.....	1	-----	
Do.....	Jan. 10-Feb. 6.....	9	-----	
Do.....	Feb. 14-Mar. 5.....	6	-----	
Straits Settlements:				
Singapore.....	Dec. 20-26.....	1	-----	
Do.....	Jan. 10-16.....	2	1	
Switzerland.....				June 28-Nov. 21, 1925: Cases, 62;
Lucerne.....	Oct. 1-Nov. 30.....	8	-----	Dec. 27, 1925-Jan. 30, 1926:
Zurich.....	Dec. 27-Jan. 2.....	1	-----	Cases, 37.
Trinidad (West Indies):				
Port of Spain.....	Jan. 1-Feb. 20.....	3	-----	
Tunisia:				
Tunis.....	Nov. 21-30.....	2	-----	
Do.....	Dec. 11-31.....	10	1	
Do.....	Jan. 1-Feb. 20.....	6	-----	
Union of South Africa:				Outbreaks.
Cape Province.....	Jan. 17-23.....	-----	-----	
Orange Free State—				Do.
Kuruman district.....	Jan. 10-16.....	-----	-----	Do.
Ladybrand district.....	Dec. 27-Jan. 2.....	-----	-----	
Transvaal.....	do.....	-----	-----	Do.
Belfast district.....	Jan. 2-9.....	-----	-----	Do.
Germiston district.....	Dec. 6-12.....	-----	-----	Outbreaks. In native compound.
Pretoria district.....	Feb. 21.....	2	-----	Mexican steamer Montezuma, at
On vessel.....				Port of Ensenada, Mexico.

## TYPHUS FEVER

Algeria:				
Algiers.....	Nov. 1-Dec. 20.....	2	-----	
Do.....	Jan. 1-Feb. 28.....	9	-----	
Argentina:				
Rosario.....	Oct. 13-Dec. 31.....	2	-----	
Bulgaria.....	Sept. 1-Dec. 31.....	50	3	
Sofia.....	Dec. 25-31.....	1	-----	
Do.....	Jan. 8-14.....	2	-----	
Chile.....				Dec. 15-31, 1925: Cases, 46.
Achao.....	Dec. 15-31.....	1	-----	
Bulnes.....	do.....	1	-----	
Chilian.....	do.....	24	-----	
Concepcion.....	do.....	6	-----	
Linars.....	do.....	1	-----	
Los Angeles.....	do.....	5	-----	
Penco.....	do.....	2	-----	
San Carlos.....	do.....	1	-----	
Talca.....	do.....	1	-----	
Valparaiso.....	do.....	4	-----	
Do.....	Nov. 29-Jan. 2.....	-----	2	
China:				
Antung.....	Nov. 29-Dec. 27.....	5	1	
Do.....	Jan. 4-10.....	1	-----	
Hongkong.....	Dec. 27-Jan. 2.....	1	-----	
Manchuria—				
Harbin.....	Dec. 17-Feb. 4.....	3	-----	
Czechoslovakia.....	October-December.....	145	1	
Egypt:				
Alexandria.....	Jan. 8-14.....	1	-----	
Cairo.....	Nov. 5-Dec. 18.....	3	2	
Port Said.....	Nov. 19-25.....	1	-----	
Finland.....				October, 1925: 1 case.
France.....	July-October.....	4	-----	

# **CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued**

**Reports Received from December 26, 1925, to April 9, 1926—Continued**

## **TYPHUS FEVER—Continued**

Place	Date	Cases	Deaths	Remarks
Germany.....	Oct. 25-31.....	1		
Greece.....				December, 1925: Cases, 12.
Athens.....	Nov. 1-30.....	11	2	
Do.....	Jan. 1-Feb. 28.....	38	7	
Saloniki.....	Dec. 29-Jan. 4.....	1		
Do.....	Feb. 2-8.....	1		
Hungary.....				November-December, 1925: Cases, 16.
Ireland:				
Cork County—				
Cork.....	Dec. 26-Jan. 1.....	2		
Do.....	Jan. 2-8.....	5		
Dunmawway.....	Nov. 14.....	1		
Galway County.....	Oct. 17.....	1		
Latvia.....	October-December.....	4		
Lithuania.....				September-October, 1925: Cases, 6; deaths, 1.
Mexico.....				July-September, 1925. Deaths, 90.
Aguascalientes.....	Dec. 14-19.....	1		
Durango.....	Dec. 1-31.....		1	
Do.....	Jan. 1-31.....		1	
Guadalajara.....	Dec. 8-28.....		2	
Do.....	Dec. 29-Jan. 4.....		1	
Mexico.....	Nov. 22-Dec. 26.....	145		Including municipalities in Federal District.
Do.....	Dec. 27-Mar. 6.....	79		Do.
San Luis Potosi.....	Feb. 6-13.....		1	
Tampico.....	Dec. 21-Jan. 10.....	1	1	
Torreon.....	November, 1925.....		1	
Vera Cruz.....	Feb. 12.....		1	
Morocco.....	August-December.....	93		
Norway.....				November-December, 1925: Cases, 2.
Palestine:				
Gaza.....	Dec. 18.....	1		
Jaffa.....	Dec. 17.....	1		
Do.....	Feb. 23-Mar. 1.....	1		
Nazareth.....	Nov. 3-9.....	1		
Safad.....	Nov. 24-30.....	1		
Tel-Aviv.....	do.....	1		
Peru:				
Arequipa.....	October-December.....		3	
Poland.....	Oct. 11-Nov. 13.....	215	26	
Do.....	Nov. 29-Jan. 2.....	247	18	
Do.....	Jan. 3-16.....	190	14	
Rumania.....				July-October, 1925: Cases, 181; deaths, 22.
Constantza.....	Feb. 1-10.....	1		
Russia.....				May-June, 1925: Cases, 10,680.
Do.....				July-October, 1925: Cases, 6,035.
Turkey:				
Constantinople.....	Jan. 24-30.....	3		
Do.....	Feb. 9-22.....	5	3	
Union of South Africa.....				From unofficial sources (press). October, 1925: Cases, 83; deaths, 7 (colored). Cases, European, 7. December, 1925: Cases, 73; deaths, 9. Colored: Cases, 73; deaths, 9. January, 1926: Cases, 94; deaths, 18. European cases, 5.
Cape Province.....	Oct. 1-31.....	63	5	Colored.
Do.....	Nov. 8-Dec. 31.....	47	8	
Do.....	Jan. 1-31.....	74	14	Do.
Grahamstown.....	Jan. 24-30.....	2		
Middleburg district.....	Dec. 6-12.....	1		European. On farm.
Natal.....	Oct. 1-Dec. 5.....	1		
Do.....	Jan. 1-31.....	9	1	Colored.
Durban.....	Jan. 3-16.....	1		
Orange Free State.....	Nov. 29-Dec. 5.....	23	1	
Do.....	Dec. 1-31.....	8	1	
Do.....	Jan. 1-31.....	6	3	Do.
Bethulia district.....	Dec. 6-12.....			Outbreaks.
Bothaville district.....	do.....	1		Native. On farm.
Transvaal.....	Oct. 1-31.....		1	
Do.....	Dec. 1-31.....	18		
Bloemhof district.....	Dec. 27-Jan. 2.....			Outbreaks. On farm.
Yugoslavia.....				Jan. 1-Feb. 21, 1926: Cases, 81; deaths, 12.

April 16, 1926

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**CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW  
FEVER—Continued**

**Reports Received from December 26, 1925, to April 9, 1926—Continued**

**YELLOW FEVER**

Place	Date	Cases	Deaths	Remarks
Gold Coast.....	Sept. 1-Dec. 31....	4	3	
Nigeria.....	August-October....	3	2	
Senegal.....	November, 1925....	3	2	

1926  
TREASURY DEPARTMENT

# PUBLIC HEALTH REPORTS

ISSUED WEEKLY

BY THE UNITED STATES  
PUBLIC HEALTH SERVICE

VOLUME 41 :: :: NUMBER 17

APRIL 23 - - - 1926

## SPECIAL ARTICLES

Comparison of Full-Time and Part-Time County Health  
Units  
Vitamin Deficiencies and Susceptibility to Certain Poison



WASHINGTON  
GOVERNMENT PRINTING OFFICE  
1926

## UNITED STATES PUBLIC HEALTH SERVICE

HUGH S. CUMMING, *Surgeon General*

### DIVISION OF SANITARY REPORTS AND STATISTICS

ASST. SURG. GEN. B. J. LLOYD, *Chief of Division*

THE PUBLIC HEALTH REPORTS are issued weekly by the United States Public Health Service through its Division of Sanitary Reports and Statistics, pursuant to acts of Congress approved February 15, 1893, and August 14, 1912.

They contain: (1) Current information of the prevalence and geographic distribution of preventable diseases in the United States in so far as data are obtainable, and of cholera, plague, smallpox, typhus fever, yellow fever, and other communicable diseases throughout the world. (2) Articles relating to the cause, prevention, or control of disease. (3) Other pertinent information regarding sanitation and the conservation of the public health.

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# PUBLIC HEALTH REPORTS

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APRIL 23, 1926

No. 17

## A COMPARISON OF FULL-TIME AND PART-TIME COUNTY HEALTH UNITS IN KANSAS

By EARLE G. BROWN, M. D., Secretary and Executive Officer, Kansas State Board of Health

It is impossible for any health department to prevent or control disease without knowledge of when, where, and under what conditions cases occur. The mere placarding and quarantine of the family for a communicable disease will not prevent the spread of the infection; the source from which the persons affected derived the infection must be located and proper measures must be taken to prevent the occurrence of additional cases.

A study of the part-time county health departments in Kansas indicates that through their activities they make very little impression upon the prevalence of communicable disease.

Under the Kansas law the county commissioners are the county board of health and appoint the county health officer. The salary allowed the part-time health officer in the great majority of counties is not sufficient for his living expenses. As a result he must engage in the practice of medicine in addition to his duties as health officer. Where the part-time plan obtains, practically no preventive measures are employed in the tracing of contacts or in locating the source of origin of the cases; and missed cases are one of the principal factors in the spreading of all communicable diseases. Statistics from counties having full-time health departments disclose the fact that approximately 50 per cent of all cases of communicable diseases are not seen by physicians in counties operating under the part-time health plan.

By way of illustrating the work of an organized whole-time county health department and its value to the community at large, consideration will be given to four communicable diseases: Typhoid fever, diphtheria, smallpox, and scarlet fever. Comparison will be made of Geary County operating for a five-year period under a part-time health department and for a five-year period under a full-time health department, with the average of three Kansas counties which have like populations and have operated for the past 10 years under a part-time health department. In order to deal with concrete figures, the value of a human life is placed at \$5,000; the cost of a case of typhoid fever at \$500; of diphtheria at \$100; of smallpox at \$100; of scarlet fever at \$100, and of a funeral at \$300.

Since the organization of the Geary County full-time health department on January 1, 1920, painstaking effort has been made to trace to its source of infection every case of each of the four above-mentioned diseases. Records show that no serious epidemic has occurred in Geary County since the institution of the full-time health unit.

As is shown in the accompanying chart, the estimated economic loss from these diseases in Geary County for the five-year period totals \$85,400. Of this loss, \$56,400 occurred in 1920 and 1921. The economic loss for the remaining three years, 1922, 1923, and 1924, amounted to \$29,000. In these three years not a school child had diphtheria in this county. No person died from any of the four diseases listed in the table.

### COMPARISON OF ECONOMIC LOSSES FROM FOUR INFECTIOUS DISEASES—CONTRASTING A FULL-TIME WITH PART-TIME HEALTH UNITS. KANSAS

GEARY COUNTY					
	1915-1919	PART TIME	1920-1924	FULL TIME	DECREASE INCREASE
TYPHOID		\$24,900		\$7,000	\$17,900
SMALLPOX		\$10,200		\$2,100	\$8,100
DIPHTHERIA		\$83,700		\$33,700	\$48,000
SC. FEVER		\$76,500		\$40,600	\$35,900
POPULATION 13,244					

AVERAGE FOR THREE COUNTIES					
	1915-1919	PART TIME	1920-1924	PART TIME	DECREASE INCREASE
TYPHOID		\$66,600		\$26,500	\$40,100
SMALLPOX		\$14,400		\$1,2900	\$1,500
DIPHTHERIA		\$24,100		\$73,700	\$49,600
SC. FEVER		\$14,100		\$39,200	\$25,100
AVERAGE POPULATION 13,432					

The average economic loss per county in the three part-time counties for this three-year period, 1922, 1923, and 1924, was \$68,132, with a total of 26 deaths from the four diseases, typhoid fever, diphtheria, smallpox, and scarlet fever.

Statistics for the 10-year period for each county in the State give comparable results. Under the part-time plan, conditions remain essentially the same over each five-year period, while under the full-time plan marked improvement is shown in the prevention of cases and deaths.

On the whole, the part-time health officer is poorly financed by his board of county commissioners and has given better service than the public had any right to expect, considering the remuneration and

the handicaps under which he has worked. Much of the money thus spent has been wasted, since much of the work of the part-time health officer is not in prevention of disease, but in cleaning up outbreaks of diseases.

It is found also that wherever a full-time, active, competent county health officer is appointed he lowers the infant mortality promptly and speedily accelerates the diminution of the death rate from tuberculosis. He engages in effective measures for the education of the public in health matters and generally succeeds in a striking manner in increasing the span of life of those who reside in the community which he serves.

At the present time 10 Kansas counties are operating full-time health units.

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### THE INFLUENCE OF VITAMIN DEFICIENCIES ON SUSCEPTIBILITY TO CERTAIN POISONS

By MAURICE I. SMITH, Pharmacologist, W. T. McCLOSKEY, Assistant Pharmacologist, and E. G. HENDRICK, Laboratory Assistant, Division of Pharmacology, Hygienic Laboratory, United States Public Health Service

In the course of some work on the relation of dietary deficiencies to tuberculosis resistance it was noted that vitamin A deficiency increased the susceptibility of the tubercle-infected white rat to the intraperitoneal injection of tuberculin (1). Briefly, it was found that while in the adequately nourished rat infected with the tubercle bacillus, tuberculin shock occurred only rarely following the intraperitoneal injection of old tuberculin, similar treatment of rats maintained on a diet deficient in vitamin A, though otherwise adequately constituted, resulted in a high percentage of fatal tuberculin shock. It was scarcely possible to offer an explanation for this phenomenon in view of our limited knowledge concerning the nature of the tuberculin reaction. In spite of the enormous amount of work on tuberculin hypersensitiveness in the experimentally infected animal, but little is as yet definitely known about its mechanism, beyond the fact that it is of a different order from general protein hypersensitiveness or anaphylaxis (2), (3), (4).

The suggestion had been made that the general tuberculin reaction in the tuberculous animal is due to the reaction of the hypersensitive tuberculous organism to toxic substances liberated within the tubercle, under the influence of parenterally introduced tuberculin. The experimental work of Krause (5), Selter and Tancer (6), Assermann (7), and others would seem to furnish a basis for such an hypothesis. If this view can be accepted as correct, we would be forced to conclude that the tissues of the tubercle-infected rat, which, under normal conditions of nutrition, are quite resistant to

tubercle toxin, are rendered susceptible to this toxin when deprived of the fat soluble A food accessory.

The relatively high degree of resistance of the adequately nourished rat is not alone limited to tubercle toxin. It has long been known that this animal is but little susceptible to anaphylactic shock, which has been recently pointed out anew by Parker and Parker (8). Coca, Ruschel, and Baughman (9) found a high resistance in the rat to diphtheria toxin, and Voegtlin and Dyer (10) have found the rat highly resistant to traumatic shock and to the shock-producing poison histamine. The influence of vitamin deficiencies upon the natural resistance of the rat in the conditions enumerated is unknown, beyond our observation with regard to an increased susceptibility to tuberculin (1) and the recent statement by Werkman, Baldwin, and Nelson (11) to the effect that vitamin deficiencies decrease its resistance to diphtheria toxin.

It seemed that further useful information upon our problem at hand would be gained from a study such as we have undertaken here, viz. the alteration of normal resistance of the rat to certain well-defined pharmacologic agents brought about by means of vitamin-deficient diets.

There is another aspect that presents itself in connection with these studies. We believe that information on the behavior of certain poisons in the avitaminous organism, if altered in some definite manner through the deficiency, should throw some light on the nature of avitaminosis. While considerable data have accumulated in recent years on the pathology of avitaminosis, the problem of altered physiologic function of organs and tissues in the avitaminous organism has only begun to receive attention, and but little is as yet known of the mode of action of the food accessory substances in the animal body. The obvious difficulty that such studies present is the fact that in our present state of imperfect knowledge of the chemistry of the vitamins, observations on their physiologic or pharmacologic action can be only of an indirect nature. Nevertheless, some important contributions in this field have already been made. Thus Baldwin, Cook, and Nelson's (12) studies on the blood pressure of avitaminous rats indicate a markedly disturbed function of the cardiovascular apparatus caused by vitamin B deficiency, and to a lesser extent by vitamin A deficiency. This altered function of the cardiovascular apparatus appears to be beyond recognition by histologic or even electrocardiographic examination of the myocardium, as is shown in the work of Baude and Deglaud (13).

Van Leeuwen and Verzar (14) examined the reactions to some of the autonomic drugs, of tissues and organs in avitaminosis, and found no deviation from the normal. Their work, however, was limited to vitamin B deficiency, the experiments having been carried out for

the most part upon pigeons subsisting on polished rice, a diet which is, of course, deficient in many ways other than in vitamins.

More recently, Alpern (15) perfused the isolated wing of pigeons subsisting on polished rice and obtained a much-reduced reaction to epinephrine and  $\text{BaCl}_2$  as compared with the normal. He correlates some of his findings with McCarrison's observation of suprarenal hypertrophy in vitamin B deficiency.

#### EXPERIMENTAL

The work reported herein has been carried out exclusively upon the albino rat, bred and raised in the laboratory under standard and uniform conditions. The diets employed in this study were as follows:

Substance	Adequate	A-deficient	B-deficient <sup>1</sup>
Casein <sup>2</sup> .....	18.0	18.0	18.0
Salt mixture 185 <sup>3</sup> .....	4.0	4.0	4.0
Dried brewers' yeast.....	5.0	5.0	0.0
Olive oil.....	8.0	10.0	8.0
Cod-liver oil.....	2.0	0.0	2.0
Starch.....	63.0	63.0	68.0
	100.0	100.0	100.0

<sup>1</sup> From some work on the nutritive properties of brewers' yeast which will be published shortly (Pub. Health Rep. (1926), 41, 201.—Ed.) it appears that dried brewers' yeast furnishes besides vitamin B another heretofore unrecognized dietary factor essential in the nutrition of the rat when maintained on a synthetic diet as used herein. The ration referred to as "B-deficient" is therefore deficient in this unrecognized factor as well as in vitamin B. Nevertheless, the term "B-deficient" is employed in conformity with common usage.

<sup>2</sup> Purified by the method of McCollum (16).

<sup>3</sup> Formula as given by McCollum and Davis (17).

The general plan followed has been that of restricting the animals to the respective diets from the time of weaning, which was usually at the age of about three to four weeks, and at a body weight of about 30 to 40 grams. The animals on the adequate diet gained at the rate of about 15 grains per week, and were used for the toxicity tests after being on the diet for four to six weeks.

The animals on the A-deficient diet usually continued to gain at a variable rate for four to six weeks, then began to decline. The animals of this group were not used for the toxicity tests until there was definite and permanent cessation of growth, readily recognizable eye lesions, and other general manifestations of vitamin A deficiency.

Because of the rapid deterioration of young animals on the B-deficient diet it was found feasible to allow them to gain a certain degree of maturity on the adequate diet, and then to be restricted to the B-deficient diet. Within four to six weeks on the B-deficient diet considerable decline in weight occurred, and symptoms of the deficiency were clearly manifest, at which time the animals were subjected to toxicity tests.

The details of the plan pursued in this work are further illustrated by the three accompanying typical charts, which are self-explanatory and require no further comment.

The toxicity tests were carried out upon the three groups of animals with a variety of pharmacological agents the actions of which are more or less well known. All the tests were carried out under identical conditions. The substances were always administered in aqueous solution, the dilutions being such that the total volume injected did not exceed 1 c. c., and usually not more than 0.5 c. c. All the injections were made slowly into one of the saphenous veins, no anesthetic being employed. It was sought to determine the maximum tolerated dose and the minimum lethal dose of a variety of substances in the three groups of animals in order to ascertain whether a deficiency in one or the other of the well-known food accessories would manifest itself in an altered susceptibility to some one chemical substance or group of chemical substances.

The substances used to determine whether vitamin deficiency resulted in an alteration of susceptibility included—

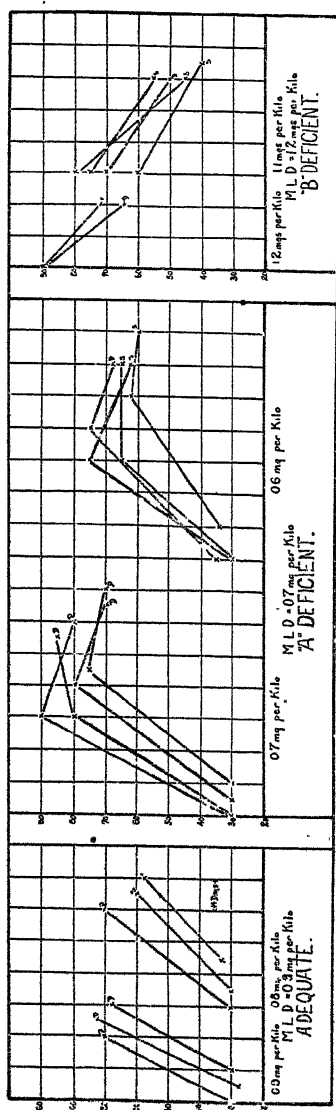
1. Central nervous system stimulants (strychnine, cocaine, atropine).
2. Central nervous system depressants (chloral hydrate, morphine).
3. Cardiac stimulants (crystalline strophanthin).
4. Autonomic drugs (atropine, pilocarpine, ergotoxine).
5. Capillary drugs and substances affecting cell permeability (histamine, pituitary principle,  $\text{CaCl}_2$ ).
6. General protoplasmic poisons (quinine).
7. Miscellaneous (apomorphine, apocodeine, arsenic).

The results of this study are given in the following series of tables. The minimum lethal dose (M. L. D.) is the lowest dose which kills at least 50 per cent of the animals.

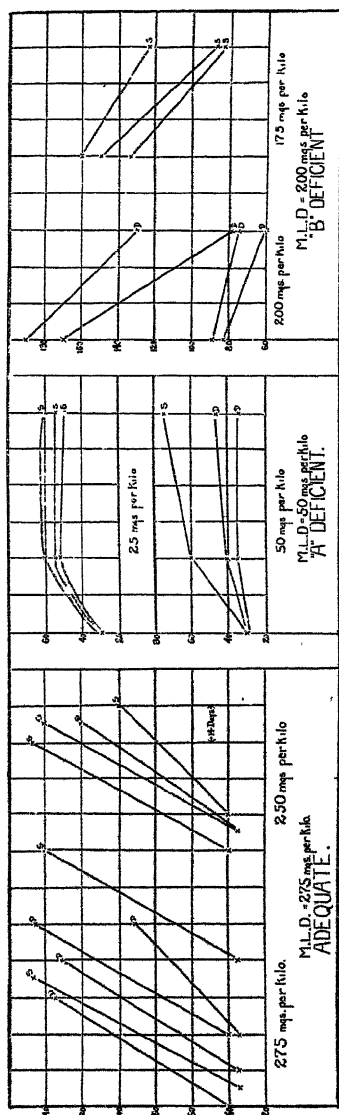
TABLE 1—*Toxicity of strychnine sulphate*

Dose, mg. per kilo	Adequate		-B		-A	
	Number of animals used	Result <sup>1</sup>	Number of animals used	Result <sup>1</sup>	Number of animals used	Result <sup>1</sup>
1.2.....			2	++		
1.1.....			3	---		
1.0.....	1	+	3	---		
0.9.....	3	+++			1	+
0.8.....	3	+-			4	++++
0.7.....					4	+-
0.6.....						
M. L. D.....	0.9 mg. per kilo.....		1.2 mg. per kilo.....		0.7 mg. per kilo.....	

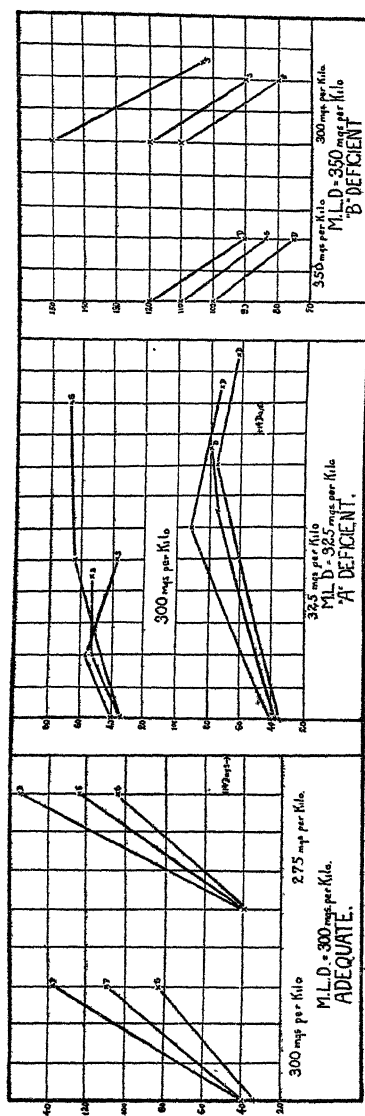
<sup>1</sup> + indicates death; - recovery.



TOXICITY OF STRYCHNINE SULPHATE IN AVITAMINOUS RATS.



TOXICITY OF MORPHINE SULPHATE IN AVITAMINOUS RATS.



TOXICITY OF CHLORAL HYDRATE IN AVITAMINOUS RATS.



TABLE 2.—*Toxicity of cocaine hydrochloride*

Dose, mg. per kilo	Adequate		-B		-A	
	Number of animals used	Result	Number of animals used	Result	Number of animals used	Result
15.0.....	3	+++	4	++++	2	++
10.0.....	3	+++	3	---	3	+++
8.0.....	4	---	3	---	3	---
6.0.....					3	---
4.0.....						
M. L. D.....	10.0 mg. per kilo		15.0 mg. per kilo		8.0 mg. per kilo	

TABLE 3.—*Toxicity of atropine sulphate*

Dose, mg. per kilo	Adequate		-B		-A	
	Number of animals used	Result	Number of animals used	Result	Number of animals used	Result
125.0.....	2	++	3	+++	2	++
100.0.....	3	+-	3	+-	2	++
75.0.....	4	+-	4	+-	3	++
60.0.....					3	+-
40.0.....					2	--
M. L. D.....	125 mg. per kilo		125 mg. per kilo		75 mg. per kilo	

TABLE 4.—*Toxicity of crystalline strophanthin (ouabain)*

Dose, mg. per kilo	Adequate		-B		-A	
	Number of animals used	Result	Number of animals used	Result	Number of animals used	Result
25.0.....			5	++++		
20.0.....	2	++	6	++++		
15.0.....	6	++++	5	++++	3	+++
16.0.....	5	++++	3	---		
14.0.....	3	---			5	++++
12.0.....					4	++++
10.0.....					6	++
8.0.....					5	+-
M. L. D.....	16.0 mg. per kilo		18.0 mg. per kilo		12.0 mg. per kilo	

TABLE 5.—*Toxicity of morphine sulphate*

Dose, mg. per kilo	Adequate		-B		-A	
	Number of animals used	Result	Number of animals used	Result	Number of animals used	Result
300.....	3	+++	3	+++	3	+++
275.....	6	++++	2	+++	3	+++
250.....	4	++++	3	+++		
225.....	4	---			2	++
200.....			4	++++	3	+++
175.....			3	---	3	+++
150.....			3	---		
100.....					3	+++
75.....					3	+++
50.....					3	+++
25.....					3	---
M. L. D.....	275 mg. per kilo		200 mg. per kilo		50 mg. per kilo	

TABLE 6.—*Toxicity of chloral hydrate*

Dose, mg. per kilo	Adequate		-B		-A	
	Number of animals used	Result	Number of animals used	Result	Number of animals used	Result
350.....			3	++-	1	+
325.....					3	+++
300.....	3	++-	3	---	3	---
275.....	3	++-	3	---	3	---+
250.....	3	++-				
225.....	3	---				
M. L. D.....	360 mg. per kilo		350 mg. per kilo		325 mg. per kilo	

TABLE 7.—*Toxicity of pilocarpine hydrochloride*

Dose, mg. per kilo	Adequate		-B		-A	
	Number of animals used	Result	Number of animals used	Result	Number of animals used	Result
150.....	3	+++				
125.....	3	+++				
100.....	3	---+			3	+++
75.....	3	---	3	+++	3	---
50.....			5	++++		
40.....			4	++++		
M. L. D.....	125 mg. per kilo		50 mg. per kilo		125 mg. per kilo	

TABLE 8.—*Toxicity of ergotoxine phosphate*

Dose, mg. per kilo	Adequate		-B		-A	
	Number of animals used	Results	Number of animals used	Results	Number of animals used	Results
40.....	3	++-				
36.....	3	---	1	+		
26.....	4	++--	4	+++	3	+++
15.....	3	---	3	---	3	+++
10.....	4	---	4	---	3	+++
8.....					3	+++
6.....					2	++
4.....					3	++
M. L. D.....	40 mg. per kilo		20 mg. per kilo		6 mg. per kilo	

TABLE 9.—*Toxicity of histamine phosphate*

Dose, mg. per kilo	Adequate		-B		-A	
	Number of animals used	Results	Number of animals used	Results	Number of animals used	Results
600.....	5	++++	3	+++		
500.....	7	++++	4	+++	4	+++
400.....	4	---	3	---	5	++++
300.....					4	---
M. L. D.....	660 mg. per kilo		500 mg. per kilo		400 mg. per kilo	

TABLE 10.—*Toxicity of pituitary active principle (standard infundibular powder (18))*

Dose, mg. per kilo	Adequate		-B		-A	
	Number of animals used	Result	Number of animals used	Result	Number of animals used	Result
200.....	3	+++	6	++++--	3	++-
175.....			4	+++		
150.....	3	---	6	+++	4	+++
100.....	3	++-	4	---	4	+++
80.....	6	++---			5	++---
M. L. D.....	200 mg. per kilo		200 mg. per kilo		200 mg. per kilo	

TABLE 11.—*Toxicity of calcium chloride*

Dose, mg. per kilo	Adequate		-B		-A	
	Number of animals used	Result	Number of animals used	Result	Number of animals used	Result
150.....			3	+++	3	++-
125.....	2	++	3	+++	3	++-
100.....	3	---	4	++-	3	---
75.....	3	---	3	+-		
M. L. D.....	125 mg. per kilo		100 mg. per kilo		125 mg. per kilo	

TABLE 12.—*Toxicity of quinine dihydrochloride*

Dose, mg. per kilo	Adequate		-B		-A	
	Number of animals used	Result	Number of animals used	Result	Number of animals used	Result
75.....	2	++				
50.....	3	+++	4	++-	3	++-
40.....	3	++-	3	++-	3	---
30.....	3	---	4	---		
M. L. D.....	50 mg. per kilo		50 mg. per kilo		50 mg. per kilo	

TABLE 13.—*Toxicity of arsenoxide*<sup>1</sup>

Dose, c. c. M/100 per kilo	Adequate		-B		-A	
	Number of animals used	Result	Number of animals used	Result	Number of animals used	Result
10.0.....	7	+++++++	7	+++++++	6	++++++-
7.5.....	8	+++++++	7	+++++++	6	++++++-
5.0.....						
M. L. D.....	7.5 c. c. per kilo <sup>1</sup>		7.5 c. c. per kilo		10.0 c. c. per kilo	

<sup>1</sup> This was a preparation made by Dr. J. M. Johnson in this laboratory. According to numerous experiments with this preparation by Miss H. Dyer of this laboratory, the M. L. D. for the normal rat is 7.5 to 10.0 c. c. M/100 per kilo.

TABLE 14.—*Toxicity of apomorphine hydrochloride*

Dose, mg. per kilo	Adequate		-B		-A	
	Number of animals used	Result	Number of animals used	Result	Number of animals used	Result
50.....	3	++-	2	++	3	+++
40.....	2	+-				
30.....	3	+--	3	---	3	+--
20.....					3	---
M. L. D.....	50 mg. per kilo		50 mg. per kilo		50 mg. per kilo	

TABLE 15.—*Toxicity of apocodeine hydrochloride*

Dose, mg. per kilo	Adequate		-B		-A	
	Number of animals used	Result	Number of animals used	Result	Number of animals used	Result
20.....	2	++	3	+++	1	+
15.....	3	---	5	+---	2	++
10.....	3	---	5	+---	3	+--
5.....					3	---
M. L. D.....	20 mg. per kilo		20 mg. per kilo		15 mg. per kilo	

The results detailed in the foregoing tables may now be summarized so as to show the relative toxicity of the substances studied for the three groups of animals. If the susceptibility of the group of animals on the adequate diet to the several poisons examined be expressed as 100 per cent, then the relative susceptibilities of the two groups on the vitamin deficient diets may be expressed as follows:

Substance	Vitamin B deficient	Vitamin A deficient
Strychnine sulphate.....	75	130
Cocaine hydrochloride.....	66	125
Atropine sulphate.....	100	165
Ouabain.....	90	133
Morphine sulphate.....	137	550
Chloral hydrate.....	86	92
Pilocarpine hydrochloride.....	250	100
Ergotoxine phosphate.....	200	666
Histamine.....	120	150
Pituitary principle.....	100	100
Calcium chloride.....	125	100
Quinine dihydrochloride.....	100	100
Arsenoxide.....	100	75
Apomorphine hydrochloride.....	100	100
Apocodeine hydrochloride.....	100	133

In discussing these results we are fully aware of the fact, that, in some instances, the number of animals used for the determination of the minimum lethal dose is inadequate for arriving at anything but approximate figures. However, the purpose of the work was to

establish gross differences and not slight deviations from the normal. Keeping this fact in mind we believe that these figures clearly indicate an enormously increased susceptibility of the vitamin A deficient group to the alkaloids morphine and ergotoxine, and a greatly increased susceptibility of the B-deficient group to pilocarpine and to ergotoxine. It will be noted that central nervous system stimulants generally, such as strychnine, cocaine, and atropine, as well as ouabain and apocodeine, which also appear to produce in the rat, symptoms predominantly referable to the central nervous system, are all appreciably more toxic to the vitamin A deficient animal than to the adequately nourished control. The resistance of the vitamin B deficient animal to these poisons, on the other hand, seems to be either unchanged or actually somewhat increased. The other substances examined, with the exception of histamine, appear to affect alike the adequately nourished and the vitamin-deficient animals, histamine being definitely more toxic to the vitamin A deficient animal than to the control. The susceptibility of vitamin-deficient animals to apomorphine is unchanged, in spite of its close resemblance chemically to morphine.

#### DISCUSSION

If we attempt to classify the results obtained in this study on the basis of pharmacological action as related to altered susceptibility induced by vitamin deficiencies, we find that no generalizations are possible. Thus the two central nervous system depressants, morphine and chloral hydrate, show a wide difference in effects, vitamin A deficiency increasing the susceptibility of the animal to the one more than fivefold, but not at all to the other. On the other hand, the susceptibility to morphine and ergotoxine, two substances of widely different pharmacological action, is altered in nearly the same manner by this deficiency.

Examination of the influence of vitamin deficiency upon the toxicity of substances for which the rat normally enjoys a natural immunity shows that here too there is lack of uniformity. Thus, both deficiencies, and more especially vitamin A deficiency, increase the susceptibility of the experimental animal to histamine; and they are without appreciable effect upon susceptibility to pituitary active principle,<sup>1</sup> while ouabain toxicity is somewhat increased by A deficiency and diminished by B deficiency.

Do these experiments throw any light on the nature of vitamin action in the animal organism? The lowered blood pressure in avitaminosis noted by Baldwin, Cook, and Nelson (12) is ascribed by them to a weakened myocardium. The fact that neither vitamin A nor

<sup>1</sup> It should be added, however, that some recent observations on the toxicity of the active principle of pituitary on intravenous injection in laboratory animals indicate that the rabbit and cat are at least as tolerant as the rat (200 mgs. per kilo. is tolerated by both species), and that the guinea pig apparently is the only animal showing a high susceptibility to this substance, 10 mg. per kilo. being fatal.

vitamin B deficiency alters to any great extent the susceptibility of the experimental animal to either chloral hydrate or ouabain, the one a cardiac depressant, the other a stimulant of the myocardium, would indicate that the cause of the lowered blood pressure must be looked for elsewhere in the cardio-vascular apparatus. The greatly increased susceptibility to ergotoxine in the case of both deficiencies points to an altered function of the autonomic division of the central nervous system. The assumption that vitamin deficiencies damage the sympathetic mechanism controlling vascular tone would appear to explain the observed facts satisfactorily. The decreased resistance of the B-deficient animal to pilocarpine and that of the A-deficient animal to the several nerve poisons would indicate that the impairment of the nervous system, though perhaps most marked in the autonomic division, is more or less general. The greatly increased susceptibility of the A-deficient animal to morphine in particular suggests a much weakened respiratory center. Sluggish circulation and weakened respiratory center would account satisfactorily for the frequent occurrence of pulmonary congestion and lung disease in rats on vitamin A deficient diet.

If it were permissible to draw conclusions from reasoning by analogy we would venture to suggest that the action of tuberculin in the tuberculous organism is on the autonomic mechanism controlling cardio-vascular tone, and possibly to some extent also on the capillaries.

It is, of course, possible that the ability of the tissues of the vitamin-deficient animal to detoxify certain poisons may be reduced. This appears likely from a consideration of the relative toxicity of morphine and apomorphine in the avitaminous animal. Morphine is normally detoxified probably largely through oxidation. The indications are from some recent studies on the subject that cellular oxidation is reduced in avitaminosis (19), (20). We would reserve for future study the question of detoxification in avitaminosis.

#### SUMMARY AND CONCLUSIONS

A study was made of the toxicity of a number of pharmacologic agents in vitamin-deficient rats.

Increased susceptibility to pilocarpine and ergotoxine was observed in vitamin B deficient animals.

Rats on vitamin A deficient diet showed a much lowered resistance to ergotoxine and to morphine. Definite though slight, increase in susceptibility was also noted to histamine, ouabain, and to the alkaloids strychnine, atropine, cocaine, and apocodeine.

The bearing of these findings on the mechanism of vitamin action in the animal organism is discussed. A possible mode of action of tuberculin in the tuberculous animal is also pointed out.

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## PUBLIC HEALTH ENGINEERING ABSTRACTS

**Progress in the Purification of Water Supplies.** Norman J. Howard, Bacteriologist in Charge of Water Purification, Toronto, Ontario. *Contract Record*, vol. 39, No. 52, December 30, 1925. Pages 133-138. (Abstracted by Rudolph E. Thompson.)

Progress in water purification during 1925 is reviewed, the phases of the subject dealt with being double filtration, slow sand and rapid sand filtration, sedimentation and coagulation, algal growths, pipe incrustation, softening, ultra-violet ray treatment, sodium iodide treatment and goiter, water standards, *B. coli* test, and removal of taste from chlorinated waters. The method of superchlorination and dechlorination has recently been experimented with at Toronto as a means of correcting the latter difficulty, and this process will be tried on a large scale in the near future. Employment of double filtration to cope with the ever increasing pollution is extending.

**Relation Between Stream Pollution and Extent of Sewage Treatment Required.** J. K. Hoskins. *American City*, vol. 34, No. 3, March, 1926. Pages 254-256. (Abstracted by H. N. Old.)

There is briefly discussed the relationship between stream pollution and sewage treatment in connection with public water supplies

and nuisance prevention, which are the two extremes in the matter of receiving-stream utilization.

In considering the matter of protection of water supplies downstream, there is given the result of studies of carefully collected data of a number of cities tending to show the *B. coli* concentration, the seasonal variation in concentration, the seasonal variation of bacterial decrease in streams, and demonstrating that, if these relationships hold good it is possible to predict the number of *B. coli* remaining in the stream after stated intervals of elapsed time of flow (and distance) from the sewer outlet, where the initial concentration is known, or where the sewered population and the volume of stream flow are obtainable. A formula for determining *B. coli* concentration is given, based on these observations.

Studies of efficiency of water treatment plants appear to point out that there are quite definite limits to permissible loading if safe effluents are to be produced, depending to a reasonable degree on type of treatment adopted.

In the matter of nuisance prevention there must be avoided the septic or putrefactive activity incident to the oxygen requirement of the contained organic matter exceeding the available dissolved oxygen supply of the stream. In order successfully to deal with such a condition it is essential to have some concrete knowledge of the oxygen demand of the sewage, the rate of oxidation of organic matter in the receiving stream, and of the rate of aeration or replenishment of dissolved oxygen. It is stated that observations thus far made indicate that time, temperature, degree of mixing or turbulence, concentration of organic matter, and, perhaps, various other factors must be taken into consideration for each specific case.

The average 10-day oxygen demand of domestic sewage is given as about 0.22 pound per day. By study of each individual case there may be determined with sufficient accuracy just what maximum limit of organic pollution may be countenanced, or on the other hand, the minimum dissolved oxygen supply which must be maintained.

One table is given showing seasonal (monthly) variation of *B. coli* per cubic centimeter per capita in one second-foot stream flow, ranging from 26 in January to 226 in June. Two tables (one each for summer and winter) giving number of *B. coli* per cubic centimeter remaining after stated times of flow from point of maximum concentration are included.

**The Installation of Ponds for Propagating Gambusia at Impounded Water Projects.** S. F. Hildebrand. Transactions of Fifth Conference of Malaria Field Workers, U. S. Public Health Service, *Public Health Bulletin*, No. 156, 1925. Pages 98-102. (Abstracted by S. F. Hildebrand.)



A brief reference to the beneficial results to be gained through the presence of large numbers of *Gambusia* in impounded waters is made; then the problem of obtaining *Gambusia* in abundance is discussed. The only sure way to get these fish in most localities is to propagate them. In some localities old ponds can be used as they exist. It is, however, often necessary to destroy predatory fish before *Gambusia* can be grown in large numbers in such ponds. Where old ponds are not available, it is necessary to build new ones. Naturally swampy areas and areas below springs are generally the most desirable places for locating the ponds; for in such areas the ponds seldom go dry, and aquatic plants and small animals, constituting protection and food for the fish, ordinarily already are present or quickly become established. Where swampy areas and springs do not exist, ponds may be built in or adjacent to streams.

The fish ponds may be built on the area to be flooded, causing the fish to be liberated in the new lake as the water rises, or they may be built in suitable areas near the lake. In any event it is regarded as desirable to have one or more fish ponds adjacent to the lake, from which a supply of fish may be obtained, if needed, after flooding has been completed.

Artificial feeding of the brood stock and young fish on alternate days with finely chopped meat or fish, or with bread, generally stimulates reproduction and makes for rapid growth and is an aid in propagating large numbers of *Gambusia* in ponds.

**Railway Pioneers in Malarial Control in South.** H. W. Van Hovenberg. *The Nation's Health*, vol. 8, No. 2, February 15, 1926. Pages 88-89. (Abstracted by C. G. Gillespie.)

The malaria damage or bill to the country is placed at \$100,000,000 annually. Ten years ago the St. Louis Southwestern Railway Lines discovered that fully 10 per cent of their employees received hospital treatment for malaria yearly, and that many others were unfit for work because of the disease. The sanitary engineering department was provided in 1917. To-day a scant score of railroad patients are hospitalized for malaria, in place of fully 6,000 annually. The railroad cooperated with cities and towns in controlling breeding places, but bore most of the cost, sometimes in the ratio of 5 to 1. Now the cities assume full responsibility. The railroad developed comprehensive educational campaigns using the exhibition car "Anopheles," carrying models of mosquitoes which showed their characteristics; model stock ponds and the use of larvae-eating fish; proper and improper methods of screening houses; and means for protecting against the chimney road of entrance. Health models were set up in assembly halls in schools and lectures suited to the age of the children were given. In Arkansas a malaria essay contest was

started with cash prizes. The car was equipped with a moving-picture machine. Quinine has been used in sections where maintenance men can not benefit from eradication campaigns. The economic results have been marvelous.

**The Passage of North American Anopheles Through Screens of Various Sized Mesh.** Elliot H. Gage. *Public Health Bulletin No. 156*, 1925. Pages 44-45. (Abstracted by J. A. LePrince.)

These investigations indicate that under certain conditions *A. punctipennis* and *A. quadrimaculatus* do not pass through the 12-mesh or 14-mesh wire cloth used. It was shown that *A. crucians* could pass through 12-mesh wire occasionally, but not through 14-mesh wire cloth. *Stegomyia* (*Aedes argenteus*) passed through 12-mesh and 14-mesh wire cloth. The writer is of the opinion that for protection against *Anopheles* the workmanship of screen installation is of more importance than the question of the selection of size of 14 or 16 mesh wire.

These studies were made both with adult *Anopheles* captured in nature and with *Anopheles* bred from collected larvae, and inducements were offered to have them pass through the 12, 14, and 16 mesh wire cloth used.

**River Pollution with Special Reference to Present and Prospective Legislation.** Gilbert Thomson. *Journal Royal Sanitary Institute*, vol. 46, No. 8, January, 1926. Pages 355-363. (Abstracted by A. S. Bedell.)

The writer briefly discusses the defects of the existing rivers pollution prevention act of 1876, especially with reference to the provisions regarding trade wastes which tend to protect the industries. He feels that the time is ripe for revision, which should be based on the reports of the Royal Commission on Sewage Disposal, particularly the eighth report issued in 1912.

Among the various standards and criteria set up in the report, the following are noted: (1) The limit of permissible pollution is that the river must not be rendered offensive or incapable of supporting fish life; (2) 4 parts per million of biochemical oxygen demand is the "limiting figure" which a stream, after receiving a polluting discharge, should not exceed; (3) the general standard for effluents is that suspended solids should not exceed 30 parts per million and the biochemical oxygen demand should not exceed 20 parts per million.

In considering the question of dilution the writer makes some pertinent suggestions regarding standards for sewage flow, river flow, and storm overflows. Domestic sewage being in strict proportion to population, sewage flow should be based on "standard sewage" (25-30 gallons per capita per day) and not on actual flow. Dry weather river flow may readily be calculated as one-third of the aver-

age flow based on drainage area and rainfall, with a deduction for evaporation. With regard to storm overflows, the present practice is to require that anything up to six times the dry weather flow must be taken to the disposal works, where three times the dry weather flow is to be fully treated and the remainder treated by simple settlement. If the dry weather flow is based on standard sewage calculations, this standard may require modification for very dilute sewages.

The writer suggests that, in addition to standards for effluents from various industries as discharged into stream, standards should be set up for effluents discharged into sewers, such discharges to be permitted only through accessible manholes.

**Good Technique Eliminates Germs from Dairy Utensils.** M. J. Prucha, Ph. D., Professor of Dairy Bacteriology, University of Illinois, Urbana, Ill. *The Nation's Health*, vol. 8, No. 2, February 15, 1926. Pages 98-100. (Abstracted by C. G. Gillespie.)

Market milk contains probably from 100,000 to over 1,000,000 bacteria per cubic centimeter, 80 per cent of which comes from utensils. Improvements in handling milk and in the number of containers has increased greatly in the past 30 years. A modern milk plant has vats, storage tanks, sanitary plumbing, clarifiers and filters, pasteurizers, coolers, bottle fillers, and much interconnecting piping. All these serve to open the way for bacterial contamination. Utensils must be washed visibly clean and sterilized. The paper discusses sterilization. The methods used include rinsing, sun drying, mechanical drying, chemical sterilization, and heat. Steam sterilization was studied by the division of dairy bacteriology, University of Illinois. In the case of steam sterilization, cans run as high as over 38,000,000,000 bacteria per can, and as low as almost zero. Two parts steam to one part of can capacity barely affected the bacterial content of the can; five to one would mean an increase in the milk of 1,000 bacteria per cubic centimeter; nine to one, 100 per cubic centimeter; and eleven to one less than 10 per cubic centimeter. The author recommends 9 to 12 cubic feet per 8-gallon can. The higher the pressure, the shorter the time required for sterilization. Most satisfactory results were obtained in from 15 to 30 seconds' steaming. The steaming of the exterior of utensils is very inefficient. Autoclaving is employed considerably and is effective. Each steam chamber must be studied by itself. Two quarts of boiling water are as effective in sterilizing as 10 cubic feet of steam in jet steaming. About 70 per cent of the bacteria are removed by rinsing with a quart or more of water per can. Even with sterilization, multiplication occurs in the shipping can. Drying, as an adjunct to sterilizing, is helpful. Inverting uncovered utensils is a good practice. Chemical sterilizers must impart no odor and must

be harmless. The chlorine group of disinfectants fulfill these conditions. Sodium hypochlorite is sold in liquid form; the chloramin-T is a dry crystal. Chloramin-T is slower to sterilize but retains its strength longer. Alkalies and organic matter retard the action.

**Protecting Milk at its Source.** Robert Balderston. From the Department of Public Health, Philadelphia, vol. 11, Nos. 1 and 2, January and February, 1926. Pages 7-10. (Abstracted by E. S. Tisdale.)

Throughout the Philadelphia milk shed a remarkable degree of protection of milk has been brought about by educational and co-operative means. The work of the quality control department of the Philadelphia Interstate Dairy Council was begun about five years ago and is a State and municipal cooperative effort to improve the Philadelphia milk supply. Year by year the educational work has gone on. The farmers have been gradually required to raise their standards of milk protection, since cooperating milk dealers would accept milk only from farms maintaining approved conditions. So effective has been the work of 13 farm-bred and college-trained young inspectors that the farmer now adheres closely to the sanitary regulations of the dairy council and produces a high quality of milk. The work of the quality control department of the dairy council safeguards the milk from cow to consumer, and this means safety and health to those living in the Philadelphia district.

### DEATHS DURING WEEK ENDED APRIL 10, 1926

*Summary of information received by telegraph from industrial insurance companies for week ended April 10, 1926, and corresponding week of 1925. (From the Weekly Health Index, April 13, 1926, issued by the Bureau of the Census, Department of Commerce)*

	Week ended Apr. 10, 1926	Corresponding week, 1925
Policies in force.....	63, 969, 770	59, 365, 205
Number of death claims.....	17, 105	11, 270
Death claims per 1,000 policies in force, annual rate..	13.9	9.9

Deaths from all causes in certain large cities of the United States during the week ended April 10, 1926, infant mortality, annual death rate, and comparison with corresponding week of 1925. (From the Weekly Health Index, April 13, 1926, issued by the Bureau of the Census, Department of Commerce)

City	Week ended Apr. 10, 1926		Annual death rate per 1,000 corresponding week, 1925	Deaths under 1 year		Infant mortality rate, week ended Apr. 10 1926 <sup>1</sup>
	Total deaths	Death rate <sup>1</sup>		Week ended Apr. 10, 1926	Corresponding week, 1925	
Total (68 cities) .....	9,633	17.4	14.0	1,140	887	<sup>2</sup> 94
Akron.....	52			15	6	160
Albany.....	55	24.3	16.8	3	5	63
Atlanta.....	78			12	8	
White.....	36			4		
Colored.....	42	( <sup>3</sup> )		8		
Baltimore.....	264	17.3	14.9	28	23	82
White.....	204			18		64
Colored.....	60	( <sup>3</sup> )		10		162
Birmingham.....	88	22.3	20.8	13	6	
White.....	39			5		
Colored.....	49	( <sup>3</sup> )		8		
Boston.....	304	20.3	17.6	33	38	93
Bridgeport.....	62			6	4	102
Buffalo.....	212	20.5	16.8	34	28	142
Cambridge.....	44	19.2	18.7	6	3	100
Camden.....	33	13.4	12.2	3	2	51
Canton.....	24	11.8	15.2	7	1	156
Chicago.....	819	14.3	12.4	97	107	86
Cincinnati.....	205	26.1	15.0	13	9	81
Cleveland.....	291	16.2	12.4	35	21	91
Columbus.....	102	19.0	15.5	3	8	28
Dallas.....	49	13.2	14.8	8	10	
White.....	40			8		
Colored.....	9	( <sup>3</sup> )		0		
Denver.....	74	13.7	18.9	11	10	
Des Moines.....	36	12.6	14.7	1	6	17
Detroit.....	450	18.8	10.7	103	41	166
Duluth.....	18	8.5	12.7	4	4	94
El Paso.....	32	15.9	15.9	6	5	
Erie.....	43			3	0	57
Fall River.....	52	21.0	12.5	5	10	73
Flint.....	35	14.0	9.6	3	2	50
Fort Worth.....	23	7.9	9.2	1	2	
White.....	21			1		
Colored.....	2	( <sup>3</sup> )		0		
Grand Rapids.....	53	18.0	12.3	11	7	159
Houston.....	54	17.1	15.8	3	6	
White.....	41			2		
Colored.....	13	( <sup>3</sup> )		1		
Indianapolis.....	123	17.9	16.0	11	8	81
White.....	104			11		93
Colored.....	19			0	0	0
Jacksonville, Fla.....	45	22.4	14.9	6	3	125
White.....	19			3		88
Colored.....	26			3		172
Jersey City.....	101	16.7	12.4	13	9	92
Kansas City, Kans.....	38	17.1	15.7	4	3	69
White.....	29			4		84
Colored.....	9	( <sup>3</sup> )		0		0
Kansas City, Mo.....	129	18.3	17.7	13	12	
Los Angeles.....	270			22	27	61
Louisville.....	131	22.6	15.7	17	8	146
White.....	103			14		140
Colored.....	28	( <sup>3</sup> )		3		188
Lowell.....	44	20.8	15.1	8	4	149
Lynn.....	28	14.2	20.7	2	5	50
Memphis.....	85	25.4	22.7	10	11	
White.....	41			3		
Colored.....	44	( <sup>3</sup> )		7		
Milwaukee.....	161	16.7	14.6	23	12	130
Minneapolis.....	125	15.3	15.4	11	10	61
Nashville.....	60	23.0	19.5	8	5	
White.....	33			3		
Colored.....	27	( <sup>3</sup> )		5		

Footnotes on p. 786.

*Deaths from all causes in certain large cities of the United States during the week ended April 10, 1926, infant mortality, annual death rate, and comparison with corresponding week of 1925—Continued*

City	Week ended Apr. 10, 1926		Annual death rate per 1,000 corresponding week, 1925	Deaths under 1 year		Infant mortality rate, week ended Apr. 10 1926 <sup>2</sup>
	Total deaths	Death rate <sup>1</sup>		Week ended Apr. 10, 1926	Corresponding week, 1925	
New Bedford.....	47	20.5	13.1	14	7	243
New Haven.....	40	11.7	12.5	1	4	14
New Orleans.....	154	19.4	19.0	17	13	-----
White.....	86			8		-----
Colored.....	68	(9)		9		-----
New York.....	1,934	17.2	13.3	229	203	93
Bronx Borough.....	234	14.0	9.4	25	17	83
Brooklyn Borough.....	661	15.6	12.5	80	78	81
Manhattan Borough.....	825	22.1	16.9	94	83	104
Queens Borough.....	163	11.9	9.7	23	19	104
Richmond Borough.....	51	10.2	17.3	7	6	123
Newark, N. J.....	166	19.1	11.9	16	5	77
Norfolk.....	32			0	4	0
White.....	15			0		0
Colored.....	17	(9)		0		0
Oakland.....	52	10.7	12.3	6	4	69
Oklahoma City.....	26			4	2	-----
Omaha.....	67	16.5	16.0	6	7	63
Paterson.....	52	19.1	11.0	7	2	122
Philadelphia.....	653	18.0	13.5	85	53	113
Pittsburgh.....	298	24.6	15.4	30	20	100
Portland, Oreg.....	79	14.6	14.0	7	6	72
Providence.....	104	20.2	11.3	9	6	75
Richmond.....	70	19.6	16.5	4	10	50
White.....	38			1		20
Colored.....	32	(9)		3		105
Rochester.....	100	16.5	15.0	11	9	88
St. Louis.....	295	18.7	15.6	28	13	-----
St. Paul.....	69	14.6	14.8	5	5	44
Salt Lake City <sup>4</sup> .....	44	17.5	11.9	2	2	28
San Antonio.....	66	17.4	15.3	6	9	-----
San Diego.....	35	17.2	16.7	4	4	84
San Francisco.....	185	17.3	13.3	7	7	42
Schenectady.....	33	18.5	14.0	3	1	87
Seattle.....	59			9	8	83
Somerville.....	28	14.7	17.4	2	7	52
Spokane.....	21	10.1	19.2	1	3	23
Springfield, Mass.....	49	18.0	9.9	8	3	116
Syracuse.....	45	12.9	15.8	6	8	76
Tacoma.....	26	13.0	8.0	2	0	47
Toledo.....	102	18.5	13.8	11	5	107
Trenton.....	57	22.5	15.8	8	2	134
Washington, D. C.....	157	16.4	14.9	21	10	119
White.....	100			10		83
Colored.....	57	(9)		11		201
Waterbury.....	30			5	1	107
Wilmington, Del.....	39	16.7	9.8	3	2	70
Worcester.....	50	24.6	15.9	6	6	69
Yonkers.....	29	13.3	8.3	5	2	112
Youngstown.....	50	16.3	8.5	8	3	102

<sup>1</sup> Annual rate per 1,000 population.

<sup>2</sup> Deaths under 1 year per 1,000 births. Cities left blank are not in the registration area for births.

<sup>3</sup> Data for 63 cities.

<sup>4</sup> Deaths for week ended Friday, Apr. 9, 1926.

<sup>5</sup> In the cities for which deaths are shown by color, the colored population in 1920 constituted the following percentages of the total population: Atlanta 31, Baltimore 15, Birmingham 39, Dallas 15, Fort Worth 14, Houston 25, Kansas City, Kans., 14, Louisville 17, Memphis 38, Nashville 30, New Orleans 28, Norfolk 38, Richmond 32, and Washington, D. C., 25.

# PREVALENCE OF DISEASE

*No health department, State or local, can effectively prevent or control disease without knowledge of when, where, and under what conditions cases are occurring*

## UNITED STATES

### CURRENT WEEKLY STATE REPORTS

These reports are preliminary and the figures are subject to change when later returns are received by the State health officers

#### Reports for Week Ended April 17, 1926

ALABAMA		ARKANSAS—continued	
	Cases		Cases
Cerebrospinal meningitis.....	1	Mumps.....	32
Chicken pox.....	62	Pellagra.....	10
Diphtheria.....	7	Scarlet fever.....	6
Influenza.....	279	Smallpox.....	5
Malaria.....	13	Tuberculosis.....	9
Measles.....	285	Typhoid fever.....	3
Mumps.....	96	Whooping cough.....	30
Ophthalmia neonatorum.....	1		
Pellagra.....	15		
Pneumonia.....	132		
Polioomyelitis.....	1		
Scarlet fever.....	13		
Smallpox.....	52		
Trachoma.....	6		
Tuberculosis.....	79		
Typhoid fever.....	4		
Whooping cough.....	25		
ARIZONA		CALIFORNIA	
Chicken pox.....	17	Cerebrospinal meningitis:	
Diphtheria.....	2	Los Angeles.....	2
Influenza.....	7	Sacramento.....	3
Measles.....	3	San Francisco.....	3
Mumps.....	4	Chicken pox.....	268
Pneumonia.....	1	Diphtheria.....	73
Scarlet fever.....	31	Influenza.....	23
Tuberculosis.....	21	Lethargic encephalitis:	
Typhoid fever.....	1	Monterey County.....	1
Whooping cough.....	6	San Francisco.....	1
		San Gabriel.....	1
		Measles.....	222
		Mumps.....	332
		Polioomyelitis:	
		Los Angeles.....	1
		Los Angeles County.....	1
		Scarlet fever.....	124
		Smallpox:	
		Los Angeles.....	25
		Oakland.....	17
		Scattering.....	12
		Typhoid fever:	
		Calexico.....	63
		Scattering.....	9
		Whooping cough.....	40
ARKANSAS			
Chicken pox.....	33		
Diphtheria.....	1		
Influenza.....	363		
Malaria.....	50		
Measles.....	31		

COLORADO		FLORIDA—continued	
	Cases		Cases
Chicken pox.....	28	Tuberculosis.....	100
Diphtheria.....	9	Typhoid fever.....	21
Influenza.....	1	Whooping cough.....	47
Measles.....	20		
Mumps.....	3	GEORGIA	
Pneumonia.....	8	Chicken pox.....	74
Scarlet fever.....	24	Diphtheria.....	10
Tuberculosis.....	24	Dysentery.....	3
Typhoid fever.....	1	Hookworm disease.....	1
Whooping cough.....	27	Influenza.....	253
		Malaria.....	12
CONNECTICUT		Measles.....	138
Cerebrospinal meningitis.....	1	Mumps.....	51
Chicken pox.....	44	Pellagra.....	6
Diphtheria.....	12	Pneumonia.....	65
German measles.....	17	Scarlet fever.....	10
Influenza.....	48	Septic sore throat.....	84
Measles.....	460	Smallpox.....	26
Mumps.....	7	Tuberculosis.....	28
Paratyphoid fever.....	2	Typhoid fever.....	5
Pneumonia (broncho).....	84	Whooping cough.....	27
Pneumonia (lobar).....	114		
Scarlet fever.....	105	IDAHO	
Tetanus.....	1	Chicken pox.....	15
Tuberculosis (all forms).....	30	Diphtheria.....	1
Whooping cough.....	91	Measles.....	11
		Mumps.....	20
DELAWARE		Scabies.....	4
Chicken pox.....	3	Scarlet fever.....	6
Diphtheria.....	2	Smallpox.....	3
Influenza.....	1	Tuberculosis.....	4
Malaria.....	1	Typhoid fever.....	1
Measles.....	103	Whooping cough.....	17
Pneumonia.....	3		
Scarlet fever.....	13	ILLINOIS	
Tuberculosis.....	5	Cerebrospinal meningitis:	
Whooping cough.....	2	Cook County.....	1
		Moultrie County.....	1
DISTRICT OF COLUMBIA		Vermilion County.....	1
Chicken pox.....	24	Diphtheria.....	71
Diphtheria.....	14	Influenza.....	109
Influenza.....	2	Lethargic encephalitis:	
Measles.....	615	Cook County.....	3
Pellagra.....	1	Macoupin County.....	1
Pneumonia.....	56	Measles.....	975
Scarlet fever.....	17	Pneumonia.....	363
Tuberculosis.....	25	Scarlet fever.....	336
Typhoid fever.....	1	Smallpox:	
Whooping cough.....	41	Hardin County.....	21
		Scattering.....	27
FLORIDA		Tuberculosis.....	379
Cerebrospinal meningitis.....	1	Typhoid fever.....	8
Chicken pox.....	78	Whooping cough.....	205
Dengue.....	2		
Diphtheria.....	27	INDIANA	
German measles.....	1	Chicken pox.....	81
Influenza.....	43	Diphtheria.....	23
Lethargic encephalitis.....	1	Influenza.....	89
Malaria.....	12	Measles.....	1,241
Measles.....	82	Mumps.....	7
Mumps.....	27	Pneumonia.....	26
Pneumonia.....	150	Polioomyelitis.....	1
Polioomyelitis.....	1	Scarlet fever.....	195
Scarlet fever.....	5	Smallpox.....	72
Smallpox.....	122	Trachoma.....	9
Tetanus.....	9	Tuberculosis.....	42
		Typhoid fever.....	2
		Whooping cough.....	128



IOWA		MARYLAND <sup>1</sup>	
	Cases		Cases
Chicken pox.....	27	Cerebrospinal meningitis.....	1
Diphtheria.....	16	Chicken pox.....	99
German measles.....	216	Diphtheria.....	30
Measles.....	213	German measles.....	4
Mumps.....	51	Influenza.....	42
Pneumonia.....	11	Lethargic encephalitis.....	1
Scarlet fever.....	71	Malaria.....	1
Smallpox.....	83	Measles.....	695
Tuberculosis.....	6	Mumps.....	262
Whooping cough.....	11	Paratyphoid fever.....	2
KANSAS		Pneumonia (broncho).....	77
Cerebrospinal meningitis:		Pneumonia (lobar).....	83
Americus.....	1	Scarlet fever.....	69
Harris.....	1	Septic sore throat.....	2
Isabel.....	1	Trachoma.....	2
Chicken pox.....	78	Tuberculosis.....	79
Diphtheria.....	17	Typhoid fever.....	8
German measles.....	15	Whooping cough.....	55
Influenza.....	26	MASSACHUSETTS	
Measles.....	484	Cerebrospinal meningitis.....	2
Mumps.....	21	Chicken pox.....	122
Pneumonia.....	78	Conjunctivitis (suppurative).....	15
Rabies.....	1	Diphtheria.....	41
Scarlet fever.....	80	German measles.....	297
Smallpox:		Influenza.....	132
Oakley.....	14	Lethargic encephalitis.....	1
Scatterling.....	5	Measles.....	881
Tetanus.....	1	Mumps.....	122
Tuberculosis.....	32	Ophthalmia neonatorum.....	28
Typhoid fever.....	1	Pellagra.....	1
Whooping cough.....	183	Pneumonia (lobar).....	213
LOUISIANA		Polio-myelitis.....	1
Cerebrospinal meningitis.....	2	Scarlet fever.....	271
Diphtheria.....	6	Septic sore throat.....	1
Influenza.....	75	Smallpox.....	4
Malaria.....	5	Trachoma.....	1
Measles.....	5	Trichinosis.....	1
Pneumonia.....	56	Tuberculosis (pulmonary).....	183
Scarlet fever.....	24	Tuberculosis (other forms).....	54
Smallpox.....	22	Typhoid fever.....	8
Tuberculosis.....	42	Whooping cough.....	344
Typhoid fever.....	11	MICHIGAN	
Whooping cough.....	5	Diphtheria.....	51
MAINE		Measles.....	1,456
Chicken pox.....	10	Pneumonia.....	252
Diphtheria.....	3	Scarlet fever.....	317
German measles.....	60	Smallpox.....	2
Influenza.....	397	Tuberculosis.....	49
Lethargic encephalitis.....	1	Typhoid fever.....	5
Measles.....	369	Whooping cough.....	164
Mumps.....	54	MINNESOTA	
Paratyphoid fever.....	1	Chicken pox.....	126
Pneumonia.....	67	Diphtheria.....	70
Scarlet fever.....	38	Measles.....	463
Septic sore throat.....	1	Pneumonia.....	2
Tuberculosis.....	10	Scarlet fever.....	326
Typhoid fever.....	7	Smallpox.....	5
Vincent's angina.....	5	Tuberculosis.....	49
Whooping cough.....	52	Typhoid fever.....	1
		Whooping cough.....	42

<sup>1</sup> Week ended Friday.

MISSISSIPPI		NEW YORK	
	Cases	(Exclusive of New York City)	Cases
Diphtheria.....	4	Cerebrospinal meningitis.....	3
Influenza.....	60	Chicken pox.....	182
Scarlet fever.....	4	Diphtheria.....	73
Smallpox.....	9	Dysentery.....	1
Typhoid fever.....	3	German measles.....	293
MISSOURI		Influenza.....	549
Chicken pox.....	71	Lethargic encephalitis.....	5
Diphtheria.....	64	Measles.....	1,742
Influenza.....	32	Mumps.....	106
Measles.....	1,173	Paratyphoid fever.....	1
Mumps.....	64	Pneumonia.....	411
Pneumonia.....	4	Poliomyelitis.....	1
Rabies (in animals).....	1	Scarlet fever.....	255
Scarlet fever.....	303	Septic sore throat.....	1
Smallpox.....	9	Smallpox.....	12
Trachoma.....	7	Typhoid fever.....	3
Tuberculosis.....	32	Vincent's angina.....	6
Typhoid fever.....	2	Whooping cough.....	415
Whooping cough.....	97	OKLAHOMA	
MONTANA		(Exclusive of Oklahoma City and Tulsa)	
Chicken pox.....	29	Cerebrospinal meningitis—Tulman County.....	1
German measles.....	49	Chicken pox.....	34
Influenza.....	5	Diphtheria.....	15
Measles.....	36	Influenza.....	867
Mumps.....	8	Malaria.....	13
Scarlet fever.....	6	Measles.....	74
Tuberculosis.....	1	Mumps.....	6
Whooping cough.....	18	Pellagra.....	3
NEBRASKA		Pneumonia.....	121
Chicken pox.....	22	Scarlet fever.....	41
Diphtheria.....	3	Smallpox.....	18
Influenza.....	6	Typhoid fever.....	5
Measles.....	35	Whooping cough.....	53
Mumps.....	12	OREGON	
Pneumonia.....	3	Cerebrospinal meningitis.....	2
Scarlet fever.....	80	Chicken pox.....	35
Smallpox.....	26	Diphtheria.....	22
Tuberculosis.....	1	Influenza.....	31
Whooping cough.....	16	Measles.....	74
NEW JERSEY		Mumps.....	26
Cerebrospinal meningitis.....	2	Pneumonia.....	14
Chicken pox.....	145	Rocky Mountain spotted fever.....	4
Diphtheria.....	80	Scarlet fever.....	58
Influenza.....	80	Smallpox.....	11
Measles.....	2,912	Tuberculosis.....	8
Pneumonia.....	310	Typhoid fever.....	3
Scarlet fever.....	188	Whooping cough.....	53
Typhoid fever.....	16	PENNSYLVANIA	
Whooping cough.....	75	Actinomycosis—Springdale.....	1
NEW MEXICO		Cerebrospinal meningitis:	
Cerebrospinal meningitis.....	1	East Pittsburgh.....	2
Chicken pox.....	12	York.....	1
Conjunctivitis.....	5	Chicken pox.....	226
Diphtheria.....	4	Diphtheria.....	125
German measles.....	1	German measles.....	33
Measles.....	21	Impetigo contagiosa.....	5
Mumps.....	11	Lethargic encephalitis.....	2
Pneumonia.....	5	Measles.....	3,724
Forpereal septicemia.....	1	Mumps.....	204
Scarlet fever.....	9	Ophthalmia neonatorum—Philadelphia.....	4
Tuberculosis.....	13	Pneumonia.....	58
Vincent's angina.....	4		
Whooping cough.....	47		

## PENNSYLVANIA—continued

	Cases
Scabies.....	4
Scarlet fever.....	483
Smallpox.....	1
Tetanus—Reading.....	1
Tuberculosis.....	135
Typhoid fever.....	22
Whooping cough.....	256

## RHODE ISLAND

Chicken pox.....	1
Diphtheria.....	2
German measles.....	21
Influenza.....	7
Measles.....	153
Mumps.....	1
Ophthalmia neonatorum.....	2
Scarlet fever.....	9
Septic sore throat.....	1
Tuberculosis.....	8
Whooping cough.....	8

## SOUTH DAKOTA

Chicken pox.....	8
Diphtheria.....	1
Measles.....	15
Mumps.....	40
Pneumonia.....	3
Scarlet fever.....	55
Smallpox.....	10
Tuberculosis.....	5
Whooping cough.....	7

## TENNESSEE

Cerebrospinal meningitis:	
Memphis.....	1
Nashville.....	1
Chicken pox.....	56
Diphtheria.....	11
Influenza.....	296
Malaria.....	4
Measles.....	359
Mumps.....	10
Ophthalmia neonatorum.....	1
Pellagra.....	9
Pneumonia.....	75
Scarlet fever.....	32
Smallpox.....	10
Tuberculosis.....	42
Typhoid fever.....	2
Whooping cough.....	33

## TEXAS

Anthrax.....	2
Chicken pox.....	62
Diphtheria.....	22
Influenza.....	353
Measles.....	11
Mumps.....	48
Paratyphoid fever.....	1
Pellagra.....	7
Pneumonia.....	20
Scarlet fever.....	15
Smallpox.....	59
Tuberculosis.....	21
Typhoid fever.....	4
Whooping cough.....	36

## UTAH

	Cases
Chicken pox.....	23
Diphtheria.....	6
Measles.....	13
Mumps.....	34
Scarlet fever.....	1
Typhoid fever.....	1
Whooping cough.....	190

## VERMONT

Chicken pox.....	22
Diphtheria.....	2
Measles.....	23
Mumps.....	7
Scarlet fever.....	8
Whooping cough.....	21

## WASHINGTON

Cerebrospinal meningitis:	
Seattle.....	2
Spokane.....	2
Chicken pox.....	65
Diphtheria.....	11
German measles.....	118
Measles.....	35
Mumps.....	41
Pneumonia.....	1
Scarlet fever.....	116
Smallpox.....	75
Tuberculosis.....	24
Typhoid fever.....	2
Whooping cough.....	66

## WEST VIRGINIA

Chicken pox.....	12
Diphtheria.....	21
Influenza.....	230
Measles.....	607
Ophthalmia neonatorum.....	1
Scarlet fever.....	19
Smallpox.....	35
Tuberculosis.....	15
Typhoid fever.....	1
Whooping cough.....	22

## WISCONSIN

Milwaukee:	
Chicken pox.....	99
Diphtheria.....	15
German measles.....	5
Influenza.....	18
Measles.....	177
Mumps.....	40
Pneumonia.....	62
Scarlet fever.....	10
Tuberculosis.....	23
Typhoid fever.....	1
Whooping cough.....	59
Scattering:	
Cerebrospinal meningitis.....	2
Chicken pox.....	72
Diphtheria.....	22
German measles.....	70
Influenza.....	656
Lethargic encephalitis.....	1

WISCONSIN—continued		WYOMING	
Scattering—Continued.	Cases		Cases
Measles.....	765	Cerebrospinal meningitis—Sheridan.....	1
Mumps.....	106	Chicken pox.....	13
Ophthalmia neonatorum.....	1	Diphtheria.....	3
Pneumonia.....	39	German measles.....	8
Scarlet fever.....	127	Measles.....	1
Smallpox.....	1	Mumps.....	7
Trachoma.....	2	Pneumonia.....	2
Tuberculosis.....	23	Scarlet fever.....	34
Typhoid fever.....	1	Tuberculosis.....	1
Whooping cough.....	115	Vincent's angina.....	1
		Whooping cough.....	19

## Report for Week Ended April 10, 1926

NORTH DAKOTA		NORTH DAKOTA—continued	
	Cases		Cases
Chicken pox.....	27	Pneumonia.....	12
Diphtheria.....	2	Scarlet fever.....	114
German measles.....	110	Smallpox.....	4
Influenza.....	33	Typhoid fever.....	3
Measles.....	72	Whooping cough.....	23
Mumps.....	45		

## SUMMARY OF MONTHLY REPORTS FROM STATES

The following summary of monthly State reports is published weekly and covers only those States from which reports are received during the current week:

State	Cerebrospinal meningitis	Diphtheria	Influenza	Malaria	Measles	Pellagra	Poliomyelitis	Scarlet fever	Smallpox	Typhoid fever
<i>March, 1926</i>										
Georgia.....	2	34	4,474	46	368	15	0	52	176	8
Indiana.....	4	101	1,432				1	914	441	9
Tennessee.....	3	44	3,137	17	1,535	15	1	116	57	14

## PNEUMONIA (ALL FORMS) AND INFLUENZA

Deaths reported in large cities of the United States during three-week periods ended April 11, 1925, and April 10, 1926

## PNEUMONIA (ALL FORMS)

	Week ended—					
	Mar. 28, 1925	Mar 27, 1926	Apr. 4, 1925	Apr. 3, 1926	Apr. 11, 1925	Apr. 10, 1926
Atlanta.....	12	14	9	12	11	14
Baltimore.....	48	56	49	46	47	41
Birmingham.....	13	10	17	12	13	11
Boston.....	26	77	39	70	38	52
Bridgeport.....	9	9	2	9	3	7
Buffalo.....	20	35	22	72	23	25
Cambridge, Mass.....	6	5	7	7	10	2
Camden.....	4	11	1	12	2	6
Canton.....	9	5	10	4	8	2
Chicago.....	96	265	96	165	80	98
Cincinnati.....	23	37	20	34	22	28
Cleveland.....	23	74	23	82	32	52
Columbus.....	22	7	13	7	12	18
Dallas.....	7	3	4	6	5	4
Denver.....	7	8	0	12	18	5
Detroit.....	48	112	41	85	36	92
Duluth.....	1	4	2	4	6	3
Elizabeth.....	4		4		2	
El Paso.....	2	1	1	3	2	1
Erie.....	3	7	1	10	6	4
Fall River.....	7	1	8	4	3	3
Flint.....	4	14	2	11	5	7
Fort Worth.....	2	4	6	7		8
Grand Rapids.....	6	7	5	8	3	5
Hartford.....	6	12	6	23	7	14
Houston.....	3	6		4	2	7
Indianapolis.....	25	29	24	27	17	22
Kansas City, Mo.....	22	22	23	25	29	29
Los Angeles.....	25	20	17	7	18	22
Louisville.....	17	45	8	27	14	39
Lowell.....	6	6	8	9	5	12
Lynn.....	3	4		2	3	3
Memphis.....	9	8	11	6	18	9
Minneapolis.....	19	11	25	10	21	23
Nashville.....		16	7	15	6	10
New Bedford.....	6	15	8	25	1	21
New Haven.....	6	14	7	11	4	6
New Orleans.....	4	15	11	12	9	10
New York.....	210	630	230	538	219	415
Newark.....	17	32	17	37	18	26
Norfolk.....	4		3	10	5	3
Oakland.....	1	4	9	6	5	7
Oklahoma City.....	1	3	3	5	2	2
Omaha.....	15	14	10	19	18	12
Philadelphia.....	71	161	52	102	55	100
Pittsburgh.....	48	66		79	39	72
Portland, Oreg.....	10		5	6	12	6
Providence.....	16	26	10	32	5	9
Reading.....	1	13	2	7	1	10
Richmond.....	4	8	4	8	8	4
Rochester.....	9	14	14	10	7	5
St. Paul.....	10	10	12	10	15	10
Salt Lake City.....	2	3	3	3	2	6
San Antonio.....	9	5	5	2	5	8
San Diego.....	2	1	6	7	7	3
San Francisco.....	5	7	14	7	2	2
Schenectady.....	4	5	4	6	2	7
Somerville.....	3	9	3	4	3	4
Springfield, Mass.....	3	6	2	5	3	4
Syracuse.....	12	15	6	4	8	2
Tacoma.....	2		6			5
Toledo.....	5	8	0	13	2	11
Trenton.....	1	14	4	8	3	11
Washington.....	19	26	22	12	11	19
Waterbury.....	5	7	1	10	1	9
Wilmington, Del.....	5	9	1	11		9
Worcester.....	4	21	13	20	9	29
Youngstown.....	5	9	1	14	4	17

*Deaths reported in large cities of the United States during three-week periods ended  
April 11, 1925, and April 10, 1926—Continued*

## INFLUENZA

	Week ended—					
	Mar 23, 1925	Mar 27, 1926	Apr. 4, 1925	Apr. 3, 1926	Apr. 11, 1925	Apr. 10, 1926
Atlanta.....		6		1	1	4
Baltimore.....	3	11	3	7	4	5
Birmingham.....	3	9	5	4	5	17
Boston.....	3	6	4	6	4	9
Bridgeport.....	2	5	1	11	1	11
Buffalo.....		11		10	2	18
Cambridge, Mass.....		3		2	1	1
Camden.....		4		3		1
Canton.....	1		2	1	3	1
Chicago.....	18	65	16	51	14	29
Cincinnati.....	9	13	11	23	7	24
Cleveland.....	2	33	5	37	2	28
Columbus.....	12		9		5	1
Dallas.....	1	5	4	2	2	2
Denver.....	2	4	18	3	7	5
Detroit.....	4	24	4	24	2	12
Duluth.....						
Elizabeth.....						
El Paso.....		1	2	6	1	1
Erie.....	1	5		6	1	11
Fall River.....		3	2	1	2	4
Flint.....	1	1		4		2
Fort Worth.....	1	4	1	5		1
Grand Rapids.....	2	3	1	4	1	5
Hartford.....		2	1	4	1	1
Houston.....		3		2		
Indianapolis.....	4	2	4		3	1
Kansas City, Mo.....	17	11	8	10	8	11
Los Angeles.....	8	1	4	2	2	2
Louisville.....	1	12		1	1	6
Lowell.....						
Lynn.....		1	2	2		
Memphis.....	3	9	1	4	2	7
Minneapolis.....	1		8	1	4	
Nashville.....	4	17	6	9	4	11
New Bedford.....		2				2
New Haven.....		2		1		
New Orleans.....	1	8	2	14	6	7
New York.....	28	133	23	113	19	72
Newark.....	1	4		2		4
Norfolk.....						
Oakland.....	2		1		3	
Oklahoma City.....		1		4		
Omaha.....						
Philadelphia.....	6	43	3	34		16
Pittsburgh.....	7	11		33	8	35
Portland, Oreg.....	4				2	2
Providence.....	4	7	2	20	3	4
Reading.....		2	3			
Richmond.....		4	3			2
Rochester.....		9		3	1	3
St. Paul.....		2				1
Salt Lake City.....		1				
San Antonio.....	2	6		4	1	4
San Diego.....		1	2			
San Francisco.....	5	3	2	2		1
Schenectady.....	2	4	1	5	1	
Somerville.....		1		7		3
Springfield, Mass.....	3	3	4		1	2
Syracuse.....	2	2	1	1	1	1
Tacoma.....			1		1	
Toledo.....	6	6	2	7	3	3
Trenton.....		5	1	1		3
Washington.....			1	4		1
Waterbury.....		2	1	2		5
Wilmington, Del.....						
Worcester.....		1		2	1	3
Youngstown.....	4	3	1	3		7

**PLAGUE ERADICATIVE MEASURES IN LOS ANGELES, CALIF.**

The following items were taken from the report of plague eradication measures from Los Angeles, Calif.:

Week ended Apr. 3, 1926:

Number of rats trapped.....	1, 414
Number of rats found to be plague infected.....	0
Number of squirrels examined.....	897
Number of squirrels found to be plague infected.....	0
Number of mice trapped.....	1, 557
Number of mice found to be plague infected.....	0

Date of discovery of last plague-infected rodent, Nov. 6, 1925.

Date of last human case, Jan. 15, 1925.

**GENERAL CURRENT SUMMARY AND WEEKLY REPORTS FROM CITIES**

*Diphtheria*.—For the week ended April 3, 1926, 36 States reported 1,090 cases of diphtheria. For the week ended April 4, 1925, the same States reported 1,483 cases of this disease. One hundred cities, situated in all parts of the country and having an aggregate population of more than 30,000,000, reported 706 cases of diphtheria for the week ended April 3, 1926. Last year for the corresponding week they reported 965 cases. The estimated expectancy for these cities was 946 cases. The estimated expectancy is based on the experience of the last nine years, excluding epidemics.

*Measles*.—Thirty-three States reported 15,886 cases of measles for the week ended April 3, 1926, and 4,699 cases of this disease for the week ended April 4, 1925. One hundred cities reported 9,735 cases of measles for the week this year and 3,042 cases last year.

*Poliomyelitis*.—The health officers of 36 States reported 15 cases of poliomyelitis for the week ended April 3, 1926. The same States reported 7 cases for the week ended April 4, 1925.

*Scarlet fever*.—Scarlet fever was reported for the week as follows: Thirty-six States—this year, 3,666 cases; last year, 4,338 cases; 100 cities—this year, 1,706 cases; last year, 2,181 cases; estimated expectancy, 1,184 cases.

*Smallpox*.—For the week ended April 3, 1926, 36 States reported 806 cases of smallpox. Last year for the corresponding week they reported 902 cases. One hundred cities reported smallpox for the week as follows: 1926, 245 cases; 1925, 316; estimated expectancy 134 cases. Ten deaths from smallpox were reported by these cities for the week this year—at Los Angeles, Calif.

*Typhoid fever*.—One hundred and seventeen cases of typhoid fever were reported for the week ended April 3, 1926, by 35 States. For the corresponding week of 1925, the same States reported 208 cases of this disease. One hundred cities reported 58 cases of typhoid fever for the week this year and 48 cases for the corresponding week last year. The estimated expectancy for these cities was 45 cases.

*Influenza and pneumonia.*—Deaths from influenza and pneumonia were reported for the week by 95 cities, with a population of more than 29,700,000, as follows: 1926, 2,416 deaths; 1925, 1,291.

*City reports for week ended April 3, 1926*

The "estimated expectancy" given for diphtheria, poliomyelitis, scarlet fever, smallpox, and typhoid fever is the result of an attempt to ascertain from previous occurrence how many cases of the disease under consideration may be expected to occur during a certain week in the absence of epidemics. It is based on reports to the Public Health Service during the past nine years. It is in most instances the median number of cases reported in the corresponding week of the preceding years. When the reports include several epidemics or when for other reasons the median is unsatisfactory, the epidemic periods are excluded and the estimated expectancy is the mean number of cases reported for the week during nonepidemic years.

If reports have not been received for the full nine years, data are used for as many years as possible, but no year earlier than 1917 is included. In obtaining the estimated expectancy the figures are smoothed when necessary to avoid abrupt deviations from the usual trend. For some of the diseases given in the table the available data were not sufficient to make it practicable to compute the estimated expectancy.

Division, State, and city	Population July 1, 1925, estimated	Chicken pox, cases reported	Diphtheria		Influenza		Measles, cases reported	Mumps, cases reported	Pneumonia, deaths reported
			Cases, estimated expectancy	Cases reported	Cases reported	Deaths reported			
NEW ENGLAND									
Maine:									
Portland.....	75,333	4	1	0	14	1	149	5	2
New Hampshire:									
Concord.....	22,546	0	0	0	0	0	1	0	1
Nashua.....	29,723	0	0	0	0	0	0	0	1
Vermont:									
Barre.....	10,008	0	0	0	0	0	0	0	0
Massachusetts:									
Boston.....	779,620	28	57	17	72	6	161	35	70
Fall River.....	128,993	0	3	2	14	1	7	1	4
Springfield.....	142,065	5	4	0	3	0	92	1	5
Worcester.....	190,757	2	5	1	26	2	0	1	29
Rhode Island:									
Pawtucket.....	69,760	0	1	1	0	0	25	0	11
Providence.....	267,918	0	9	8	19	20	98	0	32
Connecticut:									
Bridgeport.....	(1)	0	7	1	30	11	1	0	9
Hartford.....	180,197	1	7	4	10	4	31	0	23
New Haven.....	178,927	8	3	0	2	1	54	1	11
MIDDLE ATLANTIC									
New York:									
Buffalo.....	538,016	17	12	7	15	10	11	0	72
New York.....	5,873,356	98	245	156	502	113	2,214	52	538
Rochester.....	316,786		8			3			10
Syracuse.....	182,003	4	6	10	6	1	93	20	4
New Jersey:									
Camden.....	128,642	9	5	1	2	3	32	0	12
Newark.....	452,513	20	18	9	27	2	401	8	37
Trenton.....	132,020	1	4	0	2	1	8	0	8
Pennsylvania:									
Philadelphia.....	1,979,364	57	79	68		34	744	10	102
Pittsburgh.....	631,563	25	19	11		33	58	1	79
Reading.....	112,707	6	3	0			14	0	7
EAST NORTH CENTRAL									
Ohio:									
Cincinnati.....	409,333	5	9	1	4	23	50	5	34
Cleveland.....	936,485	30	22	36	240	37	277	2	82
Columbus.....	279,836	12	4	3	7	0	548	1	7
Toledo.....	287,380	22	4	4	2	7	199	0	13
Indiana:									
Fort Wayne.....	97,846	11	2	1	0	0	14	0	5
Indianapolis.....	358,819	12	7	4	0	0	555	0	27
South Bend.....	80,091	4	1	2	0	0	16	0	2
Terre Haute.....	71,071	0	1	1	0	2	7	0	2

No estimate made.



## City reports for week ended April 3, 1926—Continued

Division, State, and city	Population July 1, 1925, estimated	Chicken pox, cases re-ported	Diphtheria		Influenza		Meas-les, cases re-ported	Mumps, cases re-ported	Pneu-monia, deaths re-ported
			Cases, esti-mated expect-ancy	Cases re-ported	Cases re-ported	Deaths re-ported			
EAST NORTH CENTRAL—continued									
Illinois:									
Chicago.....	2,995,239	66	95	55	157	51	107	8	165
Peoria.....	81,564	2	2	2	0	0	0	5	7
Springfield.....	63,923	8	1	0	3	3	24	8	3
Michigan:									
Detroit.....	1,245,824	27	48	39	23	24	427	5	85
Flint.....	139,316	5	4	3	3	4	15	1	11
Grand Rapids.....	153,698	7	3	0	0	4	25	1	8
Wisconsin:									
Kenosha.....	50,891	12	2	2	11	—	0	1	—
Madison.....	46,385	—	1	—	—	—	—	—	—
Milwaukee.....	509,192	72	14	17	13	10	112	43	35
Racine.....	67,707	7	2	2	3	2	2	7	0
Superior.....	39,671	0	1	0	0	0	13	0	2
WEST NORTH CENTRAL									
Minnesota:									
Duluth.....	110,502	0	1	0	0	0	7	0	4
Minneapolis.....	425,435	44	15	9	0	1	229	6	10
St. Paul.....	246,001	4	15	8	0	0	15	5	10
Iowa:									
Davenport.....	52,469	1	0	0	0	—	2	0	—
Des Moines.....	141,441	0	2	1	20	—	319	10	—
Sioux City.....	76,411	4	1	1	0	—	2	1	—
Waterloo.....	36,771	4	0	0	0	—	5	0	—
Missouri:									
Kansas City.....	367,481	15	7	2	10	10	341	4	25
St. Joseph.....	78,342	2	1	1	4	4	8	0	3
St. Louis.....	821,543	30	38	57	3	1	413	7	—
North Dakota:									
Fargo.....	26,403	3	1	0	0	0	0	19	0
Grand Forks.....	14,811	0	0	0	0	—	1	0	—
South Dakota:									
Aberdeen.....	15,036	6	0	1	0	—	7	42	—
Sioux Falls.....	30,127	3	0	0	0	0	3	0	0
Nebraska:									
Lincoln.....	60,941	4	2	1	0	3	0	2	2
Omaha.....	211,768	4	3	0	0	0	23	0	19
Kansas:									
Topeka.....	55,411	10	1	1	0	2	23	2	2
Wichita.....	88,307	10	1	0	0	0	138	0	3
SOUTH ATLANTIC									
Delaware:									
Wilmington.....	122,049	1	2	5	0	0	20	0	11
Maryland:									
Baltimore.....	796,296	73	26	13	22	7	463	144	46
Cumberland.....	33,741	1	0	3	1	2	41	0	1
Frederick.....	12,035	0	0	0	0	0	55	2	1
District of Columbia:									
Washington.....	497,906	34	10	18	5	4	481	0	12
Virginia:									
Lynchburg.....	30,395	18	1	0	0	0	94	0	2
Norfolk.....	( <sup>1</sup> )	31	1	1	0	0	5	3	10
Richmond.....	186,403	5	2	0	0	0	18	9	8
Roanoke.....	58,208	1	0	0	0	1	141	0	8
West Virginia:									
Charleston.....	49,019	11	1	0	5	1	19	0	1
Huntington.....	63,485	0	0	1	0	0	1	0	—
Wheeling.....	56,209	8	1	1	0	0	95	0	13
North Carolina:									
Raleigh.....	30,371	1	0	1	0	3	0	0	1
Wilmington.....	37,061	7	0	0	0	1	1	1	3
Winston-Salem.....	69,031	8	0	1	0	3	20	2	3
South Carolina:									
Charleston.....	73,125	2	0	0	0	0	0	1	5
Columbia.....	41,225	7	0	0	0	0	0	5	0
Greenville.....	27,311	7	0	1	0	0	0	7	0

<sup>1</sup> No estimate made.

## City reports for week ended April 3, 1926—Continued

Division, State, and city	Population July 1, 1925, estimated	Chicken pox, cases reported	Diphtheria		Influenza		Measles, cases reported	Mumps, cases reported	Pneumonia, deaths reported
			Cases, estimated expectancy	Cases reported	Cases reported	Deaths reported			
SOUTH ATLANTIC—con.									
Georgia:									
Atlanta.....	(1)	7	2	5	41	1	10	4	12
Brunswick.....	16,809	2	0	0	0	0	0	0	0
Savannah.....	93,134	9	1	1	15	5	8	0	6
Florida:									
St. Petersburg.....	26,847		0			0			2
Tampa.....	94,743	2	1	1	0	3	1	1	8
EAST SOUTH CENTRAL									
Kentucky:									
Covington.....	58,309		0			0			7
Louisville.....	305,935	9	6	2	19	1	397	0	27
Tennessee:									
Memphis.....	174,333	30	5	4	0	4	52	9	6
Nashville.....	136,220	3	0	2	0	9	43	0	15
Alabama:									
Birmingham.....	205,670	9	2	3	60	4	59	4	12
Mobile.....	65,955	1	1	0	0	1	1	1	2
Montgomery.....	46,481	0	0	0	1	0	4	22	0
WEST SOUTH CENTRAL									
Arkansas:									
Fort Smith.....	31,643	6	0	0	0		0	1	
Little Rock.....	74,216	1	1	0	2	0	9	0	5
Louisiana:									
New Orleans.....	414,493	1	7	6	11	14	0	0	12
Shreveport.....	57,857	0	0	0	0	1	0	0	6
Oklahoma:									
Oklahoma City.....	(1)	0	1	1	43	4	15	0	5
Texas:									
Dallas.....	194,450	27	3	2	4	2	1	0	6
Galveston.....	48,375	0	0	0	0	0	0	0	1
Houston.....	164,954	2	2	6	0	2	0	0	4
San Antonio.....	198,069	0	1	0	0	4	0	0	8
MOUNTAIN									
Montana:									
Billings.....	17,971	2	0	0	0	0	0	0	1
Great Falls.....	20,883	4	0	0	0	0	6	0	0
Helena.....	12,037		0	1	0	0	0	0	0
Missoula.....	12,668	0	1	0	0	0	0	2	0
Idaho:									
Boise.....	23,042	2	0	0	0	0	0	0	0
Colorado:									
Denver.....	280,911	42	9	9		3	34	2	12
Pueblo.....	43,787	9	1	1	0	0	17	1	1
Arizona:									
Phoenix.....	38,669	0	1	1	0	0	0	1	5
Utah:									
Salt Lake City.....	130,948	13	3	5	0	0	4	18	2
Nevada:									
Reno.....	12,665	0	0	0	0	0	0	0	1
PACIFIC									
Washington:									
Seattle.....	(1)	20	5	1	0		33	23	
Spokane.....	108,897	10	3	0	0		0	0	
Tacoma.....	104,455	0	1	1	0	0	3	0	0
Oregon:									
Portland.....	282,383	9	4	11	1	0	17	10	6
California:									
Los Angeles.....	(1)	50	39	58	13	2	7	17	7
Sacramento.....	72,260	5	1	2	2	2	0	5	2
San Francisco.....	557,530	38	21	15	3	2	49	17	7

1 No estimate made.

## City reports for week ended April 3, 1926—Continued

Division, State, and city	Scarlet fever		Smallpox			Tuber- cul- osis, deaths re- ported	Typhoid fever			Whoop- ing cough, cases re- ported	Deaths, all causes
	Cases, esti- mated expect- ancy	Cases re- ported	Cases, esti- mated expect- ancy	Cases re- ported	Deaths re- ported		Cases, esti- mated expect- ancy	Cases re- ported	Deaths re- ported		
NEW ENGLAND											
Maine:											
Portland.....	3	2	0	0	0	4	0	0	0	3	21
New Hampshire:											
Concord.....	0	2	0	0	0	0	0	0	0	0	9
Nashua.....	0	0	0	0	0	1	0	0	0	0	0
Vermont:											
Barre.....	0	0	0	0	0	3	0	0	0	1	6
Massachusetts:											
Boston.....	64	98	0	0	0	20	1	1	0	107	325
Fall River.....	3	5	0	0	0	2	0	0	0	0	37
Springfield.....	6	3	0	0	0	1	0	0	0	15	44
Worcester.....	10	3	0	0	0	6	0	0	0	3	103
Rhode Island:											
Pawtucket.....	1	2	1	0	0	1	0	0	0	0	32
Providence.....	8	8	1	0	0	3	0	0	0	2	156
Connecticut:											
Bridgeport.....	8	21	0	0	0	1	0	0	0	3	64
Hartford.....	6	3	0	0	0	4	0	1	0	5	63
Hew Haven.....	10	19	0	0	0	2	1	1	0	5	82
MIDDLE ATLANTIC											
New York:											
Buffalo.....	21	15	0	0	0	9	0	0	0	37	249
New York.....	264	200	1	0	0	114	8	11	1	67	2,026
Rochester.....	17		0	0	0	4	0	0	0		89
Syracuse.....	15	1	0	0	0	1	0	0	0	23	46
New Jersey:											
Camden.....	4	8	0	0	0	0	1	0	0	7	44
Newark.....	25	25	0	0	0	10	0	1	0	21	154
Trenton.....	3	6	0	0	0	4	1	1	0	1	53
Pennsylvania:											
Philadelphia.....	76	84	0	0	0	31	3	2	0	31	569
Pittsburgh.....	22	59	0	0	0	17	1	1	0	49	307
Reading.....	4	4	0	0	0	0	0	0	0	2	23
EAST NORTH CENTRAL											
Ohio:											
Cincinnati.....	13	15	2	0	0	6	0	0	0	32	188
Cleveland.....	25	87	1	0	0	20	1	1	0	151	357
Columbus.....	9	18	2	0	0	4	0	0	1	4	90
Toledo.....	15	6	5	0	0	1	1	0	1	16	80
Indiana:											
Fort Wayne.....	3	7	2	0	0	3	0	0	0	1	32
Indianapolis.....	9	8	4	21	0	5	1	0	0	24	123
South Bend.....	4	4	1	0	0	3	0	0	0	2	15
Terre Haute.....	3	1	1	3	0	0	0	0	0	1	23
Illinois:											
Chicago.....	120	138	3	1	0	64	2	1	0	38	920
Peoria.....	3	7	0	0	0	1	0	0	0	7	27
Springfield.....	1	1	1	0	0	1	0	1	0	18	33
Michigan:											
Detroit.....	88	113	2	0	0	21	1	1	0	69	455
Flint.....	6	23	1	0	0	0	0	0	0	9	27
Grand Rapids.....	8	25	2	0	0	3	0	0	0	41	46
Wisconsin:											
Kenosha.....	3	1	1	0	0		0	0		1	
Madison.....	4		1				0				
Milwaukee.....	29	31	5	0	0	5	1	0	0	40	139
Racine.....	4	1	1	0	0	1	0	0	0	34	18
Superior.....	3	11	3	0	0	0	1	0	0	0	14
WEST NORTH CENTRAL											
Minnesota:											
Duluth.....	5	20	2	0	0	2	0	0	0	6	19
Minneapolis.....	30	47	3	0	0	8	1	1	0	10	105
St. Paul.....	31	41	6	0	0	8	1	0	0	23	77

1 Pulmonary tuberculosis only.

## City reports for week ended April 3, 1926—Continued

Division, State, and city	Scarlet fever		Smallpox			Tuber- culosis, deaths re- ported	Typhoid fever			Whoop- ing cough, cases re- ported	Deaths, all causes
	Cases, esti- mated expect- ancy	Cases re- ported	Cases, esti- mated expect- ancy	Cases re- ported	Deaths re- ported		Cases, esti- mated expect- ancy	Cases re- ported	Deaths re- ported		
WEST NORTH CENTRAL—CON.											
Iowa:											
Davenport.....	1	4	3	0	—	—	0	0	—	2	—
Des Moines.....	7	2	3	0	—	—	0	0	—	7	—
Sioux City.....	2	0	1	7	—	—	0	0	—	0	—
Waterloo.....	2	2	0	0	—	—	0	0	—	0	—
Missouri:											
Kansas City.....	11	34	2	0	0	10	0	0	0	34	139
St. Joseph.....	2	3	0	0	0	0	0	0	0	3	24
St. Louis.....	34	200	4	10	0	7	2	1	0	37	331
North Dakota:											
Fargo.....	2	1	0	0	0	0	0	1	0	0	5
Grand Forks.....	1	0	0	0	—	—	0	0	—	0	—
South Dakota:											
Aberdeen.....	2	9	0	0	—	—	0	0	—	3	—
Sioux Falls.....	2	0	0	0	0	0	0	0	0	0	1
Nebraska:											
Lincoln.....	4	0	0	4	0	2	0	1	0	12	20
Omaha.....	4	37	6	5	0	6	0	1	0	1	75
Kansas:											
Topeka.....	3	4	1	1	0	1	0	0	0	6	24
Wichita.....	2	2	3	0	0	0	0	0	0	5	26
SOUTH ATLANTIC											
Delaware:											
Wilmington.....	2	9	0	0	0	2	1	0	0	2	36
Maryland:											
Baltimore.....	36	27	1	0	0	12	2	0	0	39	247
Cumberland.....	1	0	0	0	0	0	0	0	0	0	13
Frederick.....	1	0	0	0	0	1	0	0	0	0	6
District of Col.:											
Washington.....	24	22	2	1	0	8	1	5	0	38	125
Virginia:											
Lynchburg.....	1	0	1	0	0	1	0	0	0	5	6
Norfolk.....	1	6	0	0	0	2	0	0	0	5	—
Richmond.....	2	14	0	0	0	3	0	0	0	0	55
Roanoke.....	1	1	0	1	0	1	0	0	0	0	27
West Virginia:											
Charleston.....	0	0	0	0	0	1	1	0	0	15	48
Huntington.....	0	1	0	0	0	0	0	0	0	0	—
Wheeling.....	2	3	0	0	0	2	1	0	0	0	34
North Carolina:											
Raleigh.....	0	1	0	2	0	3	0	0	0	0	21
Wilmington.....	0	0	0	0	0	1	0	0	0	4	13
Winston-Salem.....	0	2	5	0	0	3	0	0	0	0	23
South Carolina:											
Charleston.....	0	0	1	0	0	1	0	0	0	1	26
Columbia.....	0	2	0	2	0	0	0	0	0	0	—
Greenville.....	0	2	1	0	0	0	0	0	0	3	14
Georgia:											
Atlanta.....	4	3	3	0	0	2	0	1	1	2	82
Brunswick.....	0	0	0	0	0	0	0	0	0	0	4
Savannah.....	0	0	0	0	0	2	0	1	0	0	39
Florida:											
St. Petersburg.....	0	—	0	—	0	2	0	—	0	—	23
Tampa.....	0	1	0	16	0	2	1	2	1	0	35
EAST SOUTH CENTRAL											
Kentucky:											
Covington.....	2	—	0	—	0	1	1	—	0	—	23
Louisville.....	5	3	1	0	0	9	1	2	0	23	96
Tennessee:											
Memphis.....	4	28	3	8	0	11	0	1	0	0	75
Nashville.....	2	4	2	0	0	1	1	0	0	1	54
Alabama:											
Birmingham.....	1	5	8	11	0	9	1	3	0	13	65
Mobile.....	1	0	1	0	0	3	0	0	0	0	29
Montgomery.....	0	2	1	0	0	0	0	0	0	0	8

## City reports for week ended April 3, 1926—Continued

Division, State, and city	Scarlet fever		Smallpox			Tuber- culosis, deaths re- ported	Typhoid fever			Whoop- ing cough, cases re- ported	Deaths, all causes
	Cases, esti- mated expect- ancy	Cases re- ported	Cases, esti- mated expect- ancy	Cases re- ported	Deaths re- ported		Cases, esti- mated expect- ancy	Cases re- ported	Deaths re- ported		
WEST SOUTH CENTRAL											
Arkansas:											
Fort Smith.....	1	1	0	0	-----	-----	0	0	-----	7	-----
Little Rock.....	1	2	1	0	0	4	0	0	0	0	-----
Louisiana:											
New Orleans.....	5	6	4	2	0	16	2	6	0	0	167
Shreveport.....	0	0	2	0	0	4	1	0	0	0	31
Oklahoma:											
Oklahoma City.....	2	2	5	0	0	0	0	0	0	0	26
Texas:											
Dallas.....	2	7	3	2	0	4	0	0	0	21	54
Galveston.....	0	2	0	4	0	0	0	0	0	0	15
Houston.....	1	1	0	12	0	4	0	2	0	0	56
San Antonio.....	1	1	0	1	0	11	0	0	0	0	60
MOUNTAIN											
Montana:											
Billings.....	1	0	0	0	0	0	0	0	0	0	8
Great Falls.....	1	0	1	0	0	1	0	0	0	3	7
Helena.....	0	1	0	0	0	0	0	0	0	0	2
Missoula.....	1	0	1	0	0	1	0	0	0	2	9
Idaho:											
Boise.....	1	0	0	3	0	0	0	0	0	1	5
Colorado:											
Denver.....	13	13	3	0	0	11	0	3	0	97	86
Pueblo.....	1	2	0	0	0	0	0	1	0	0	13
Arizona:											
Phoenix.....	0	1	0	1	0	12	0	0	0	0	34
Utah:											
Salt Lake City.....	3	0	1	3	0	1	0	0	0	51	24
Nevada:											
Reno.....	1	0	1	0	0	0	0	0	0	0	4
PACIFIC											
Washington:											
Seattle.....	9	23	3	5	-----	-----	0	1	-----	9	-----
Spokane.....	4	26	7	0	-----	-----	0	0	-----	3	-----
Tacoma.....	2	2	2	20	0	1	0	0	1	9	15
Oregon:											
Portland.....	7	15	10	2	0	3	0	0	0	3	59
California:											
Los Angeles.....	22	23	4	93	10	29	2	1	0	14	223
Sacramento.....	2	0	0	3	0	3	1	0	0	0	33
San Francisco.....	15	19	4	8	0	9	2	2	1	1	166

Division, State, and city	Cerebrospinal meningitis		Lethargic encephalitis		Pellagra		Poliomyelitis (infantile paralysis)			
	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases, estimated expectancy	Cases	Deaths	
<b>NEW ENGLAND</b>										
New Hampshire:										
Concord.....	0	0	0	0	0	0	0	1	0	0
Massachusetts:										
Boston.....	2	1	0	0	0	0	1	0	0	0
Worcester.....	1	0	0	0	0	0	0	0	0	0
<b>MIDDLE ATLANTIC</b>										
New York:										
New York.....	8	2	17	6	0	0	0	1	1	1
New Jersey:										
Newark.....	0	0	1	0	0	0	0	0	0	0
Pennsylvania:										
Philadelphia.....	0	0	2	1	0	0	0	1	0	0

## City reports for week ended April 3, 1926—Continued

Division, State, and city	Cerebrospinal meningitis		Lethargic encephalitis		Pellagra		Polio-myelitis (infantile paralysis)		
	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases, estimated expectancy	Cases	Deaths
<b>EAST NORTH CENTRAL</b>									
Ohio:									
Columbus.....	0	0	0	1	0	0	0	0	0
Illinois:									
Chicago.....	3	2	0	0	0	0	0	1	0
Michigan:									
Detroit.....	1	0	2	1	0	0	0	0	0
Wisconsin:									
Racine.....	2	1	0	0	0	0	0	0	0
<b>WEST NORTH CENTRAL</b>									
Iowa:									
Sioux City.....	1	0	0	0	0	0	0	0	0
Missouri:									
St. Louis.....	1	0	0	0	0	0	0	0	0
<b>SOUTH ATLANTIC</b>									
Maryland:									
Baltimore.....	1	0	2	0	0	0	0	0	0
West Virginia:									
Wheeling.....	0	0	1	1	0	0	0	0	0
Georgia:									
Atlanta.....	1	1	0	0	0	0	0	0	0
<b>EAST SOUTH CENTRAL</b>									
Kentucky:									
Louisville.....	1	0	0	0	0	0	0	0	0
Tennessee:									
Memphis.....	0	0	0	0	0	3	0	0	0
Alabama:									
Birmingham.....	0	0	0	0	2	0	0	0	0
Mobile.....	1	1	0	0	0	1	0	0	0
<b>MOUNTAIN</b>									
Montana:									
Missoula.....	1	0	0	0	0	0	0	0	0
Colorado:									
Denver.....	0	0	0	1	0	0	0	0	0
<b>PACIFIC</b>									
Washington:									
Seattle.....	2	0	0	0	0	0	0	0	0
Spokane.....	5	0	0	0	0	0	0	0	0
Tacoma.....	1	1	0	0	0	0	0	0	0
Oregon:									
Portland.....	1	0	0	0	0	0	0	0	0
California:									
Los Angeles.....	0	0	0	0	0	1	0	0	0
Sacramento.....	1	0	0	0	0	0	0	0	0
San Francisco.....	1	0	1	1	0	0	0	0	0

The following table gives the rates per 100,000 population for 103 cities for the five-week period ended April 3, 1926, compared with those for a like period ended April 4, 1925. The population figures used in computing the rates are approximate estimates as of July 1, 1925 and 1926, respectively, authoritative figures for many of the cities not being available. The 103 cities reporting cases had an estimated aggregate population of nearly 30,000,000 in 1925 and nearly 30,500,000 in 1926. The 96 cities reporting deaths had more than 29,250,000 estimated population in 1925 and more than 29,750,000 in 1926. The number of cities included in each group and the estimated aggregate populations are shown in a separate table below.

Summary of weekly reports from cities, February 28 to April 3, 1926—Annual rates per 100,000 population—Compared with rates for the corresponding period of 1925<sup>1</sup>

## DIPHTHERIA CASE RATES

	Week ended—									
	Mar. 7, 1925	Mar. 6, 1926	Mar. 14, 1925	Mar. 13, 1926	Mar. 21, 1925	Mar. 20, 1926	Mar. 28, 1925	Mar. 27, 1926	Apr. 4, 1925	Apr. 3, 1926
103 cities.....	156	<sup>2</sup> 124	162	<sup>3</sup> 114	161	<sup>4</sup> 120	<sup>5</sup> 162	<sup>6</sup> 131	170	<sup>7</sup> 123
New England.....	225	67	170	78	141	128	115	139	165	80
Middle Atlantic.....	166	111	213	112	186	125	230	112	240	<sup>8</sup> 135
East North Central.....	167	121	120	<sup>9</sup> 107	125	98	101	101	88	<sup>10</sup> 112
West North Central.....	273	<sup>11</sup> 235	195	214	193	144	239	146	213	156
South Atlantic.....	58	109	86	86	129	69	90	<sup>12</sup> 62	77	96
East South Central.....	58	47	77	<sup>13</sup> 28	63	<sup>14</sup> 28	52	<sup>15</sup> 39	21	<sup>16</sup> 61
West South Central.....	137	103	150	103	92	103	111	155	79	60
Mountain.....	83	73	102	109	139	73	129	285	120	146
Pacific.....	224	189	188	148	237	283	<sup>17</sup> 170	240	350	202

## MEASLES CASE RATES

103 cities.....	403	<sup>1</sup> 1,883	433	<sup>2</sup> 1,693	487	<sup>3</sup> 1,766	<sup>4</sup> 489	<sup>5</sup> 1,537	537	<sup>6</sup> 1,689
New England.....	633	2,446	522	1,969	700	1,725	728	1,347	923	1,493
Middle Atlantic.....	426	1,840	516	1,713	553	1,855	630	1,535	731	<sup>7</sup> 1,535
East North Central.....	738	2,691	695	<sup>8</sup> 2,132	726	1,991	747	2,088	685	<sup>9</sup> 1,503
West North Central.....	66	<sup>10</sup> 845	72	1,637	90	1,872	86	2,300	74	2,391
South Atlantic.....	94	2,697	138	2,267	179	2,795	129	<sup>11</sup> 2,750	198	2,671
East South Central.....	79	1,323	11	<sup>12</sup> 1,490	63	<sup>13</sup> 2,408	32	<sup>14</sup> 3,096	63	<sup>15</sup> 3,063
West South Central.....	22	17	84	39	40	13	9	125	84	43
Mountain.....	28	209	740	337	555	328	37	510	213	555
Pacific.....	102	278	105	326	180	321	<sup>16</sup> 144	453	199	248

## SCARLET FEVER CASE RATES

103 cities.....	381	<sup>1</sup> 290	415	<sup>2</sup> 303	411	<sup>3</sup> 301	<sup>4</sup> 403	<sup>5</sup> 325	394	<sup>6</sup> 296
New England.....	543	347	515	333	525	404	582	355	515	392
Middle Atlantic.....	370	155	437	192	416	202	404	210	434	<sup>7</sup> 206
East North Central.....	403	345	480	<sup>8</sup> 370	460	340	449	407	412	<sup>9</sup> 331
West North Central.....	752	<sup>10</sup> 315	697	593	768	800	731	869	713	774
South Atlantic.....	161	163	207	150	138	158	157	<sup>11</sup> 156	165	175
East South Central.....	179	187	326	<sup>12</sup> 140	263	<sup>13</sup> 154	263	<sup>14</sup> 149	242	<sup>15</sup> 231
West South Central.....	176	90	101	112	122	135	67	146	48	86
Mountain.....	277	337	194	218	416	246	240	200	268	146
Pacific.....	207	313	218	251	207	250	<sup>16</sup> 211	286	182	251

## SMALLPOX CASE RATES

103 cities.....	60	<sup>1</sup> 50	50	<sup>2</sup> 40	61	<sup>3</sup> 36	<sup>4</sup> 56	<sup>5</sup> 38	55	<sup>6</sup> 43
New England.....	0	0	0	0	0	0	0	0	12	0
Middle Atlantic.....	1	0	5	0	8	0	7	0	21	<sup>7</sup> 0
East North Central.....	40	23	37	<sup>8</sup> 19	30	26	31	10	22	<sup>9</sup> 17
West North Central.....	111	<sup>10</sup> 62	121	67	68	40	131	57	84	46
South Atlantic.....	48	100	56	49	54	60	63	<sup>11</sup> 96	40	41
East South Central.....	599	67	410	<sup>12</sup> 472	503	<sup>13</sup> 488	389	<sup>14</sup> 61	378	<sup>15</sup> 105
West South Central.....	70	194	70	142	101	138	101	142	44	90
Mountain.....	46	36	92	18	65	64	18	27	18	55
Pacific.....	196	302	235	262	202	164	<sup>16</sup> 182	210	243	348

<sup>1</sup> The figures given in this table are rates per 100,000 population, annual basis, and not the number of cases reported. Populations used are estimated as of July 1, 1925 and 1926, respectively.

<sup>2</sup> Kansas City, Mo., not included.

<sup>3</sup> Madison, Wis., and Covington, Ky., not included.

<sup>4</sup> Covington, Ky., not included.

<sup>5</sup> Spokane, Wash., not included.

<sup>6</sup> Norfolk, Va., and Covington, Ky., not included.

<sup>7</sup> Rochester, N. Y., Madison, Wis., and Covington, Ky., not included.

<sup>8</sup> Rochester, N. Y., not included.

<sup>9</sup> Madison, Wis., not included.

<sup>10</sup> Norfolk, Va., not included.

Summary of weekly reports from cities, February 28 to April 3, 1926—Annual rates per 100,000 population—Compared with rates for the corresponding period of 1925—Continued

## TYPHOID FEVER CASE RATES

	Week ended—									
	Mar. 7, 1925	Mar. 6, 1926	Mar. 14, 1925	Mar. 13, 1926	Mar. 21, 1925	Mar. 20, 1926	Mar. 28, 1925	Mar. 27, 1926	Apr. 4, 1925	Apr. 3, 1926
103 cities.....	10	10	9	8	11	6	10	8	8	10
New England.....	7	12	5	5	29	0	12	0	5	7
Middle Atlantic.....	10	4	5	7	8	4	7	10	4	8
East North Central.....	8	5	3	4	6	3	3	4	3	3
West North Central.....	6	10	10	4	8	2	6	2	2	8
South Atlantic.....	8	6	23	8	21	21	12	16	29	17
East South Central.....	32	10	32	16	42	22	53	17	16	43
West South Central.....	26	39	26	4	22	9	40	9	31	34
Mountain.....	9	146	18	146	0	9	0	27	0	36
Pacific.....	14	16	14	0	0	5	26	13	19	11

## INFLUENZA DEATH RATES

	30	31	33	31	40	76	31	97	33	89
96 cities.....	30	31	33	31	40	76	31	97	33	89
New England.....	17	12	34	24	29	45	29	69	34	109
Middle Atlantic.....	15	68	24	105	29	95	22	111	21	100
East North Central.....	23	14	31	32	46	65	38	104	36	110
West North Central.....	34	3	32	35	40	31	44	38	38	38
South Atlantic.....	50	47	31	77	50	51	12	82	27	58
East South Central.....	95	250	84	197	110	223	79	254	63	99
West South Central.....	135	432	102	104	73	156	34	123	34	109
Mountain.....	18	160	46	146	46	46	37	64	176	27
Pacific.....	25	32	15	21	11	18	47	14	25	21

## PNEUMONIA DEATH RATES

	196	269	214	325	208	372	197	372	197	335
96 cities.....	196	269	214	325	208	372	197	372	197	335
New England.....	218	187	220	217	204	357	211	430	242	468
Middle Atlantic.....	200	357	213	460	216	503	198	493	214	432
East North Central.....	182	206	226	289	208	355	201	351	171	321
West North Central.....	136	96	160	146	167	14	161	159	186	159
South Atlantic.....	251	340	232	301	275	349	232	330	219	284
East South Central.....	247	311	336	389	263	400	247	477	247	338
West South Central.....	218	387	169	235	169	279	160	175	160	198
Mountain.....	129	237	203	300	166	206	194	191	157	155
Pacific.....	124	117	138	92	116	96	142	117	142	57

<sup>1</sup> Kansas City, Mo., not included.

<sup>2</sup> Madison, Wis., and Covington, Ky., not included.

<sup>3</sup> Covington, Ky., not included.

<sup>4</sup> Spokane, Wash., not included.

<sup>5</sup> Norfolk, Va., and Covington, Ky., not included.

<sup>6</sup> Rochester, N. Y., Madison, Wis., and Covington, Ky., not included.

<sup>7</sup> Rochester, N. Y., not included.

<sup>8</sup> Madison, Wis., not included.

<sup>9</sup> Norfolk, Va., not included.

Number of cities included in summary of weekly reports, and aggregate population of cities in each group, approximated as of July 1, 1925 and 1926, respectively

Group of cities	Number of cities reporting cases	Number of cities reporting deaths	Aggregate population of cities reporting cases		Aggregate population of cities reporting deaths	
			1925	1926	1925	1926
Total.....	103	96	29,944,996	30,478,129	29,251,658	29,764,201
New England.....	12	12	2,176,124	2,206,124	2,176,124	2,206,124
Middle Atlantic.....	10	10	10,346,970	10,476,970	10,346,970	10,476,970
East North Central.....	16	16	7,481,656	7,655,436	7,481,656	7,655,436
West North Central.....	14	11	2,594,962	2,634,662	2,461,380	2,499,036
South Atlantic.....	21	21	2,716,070	2,776,070	2,716,070	2,776,070
East South Central.....	7	7	993,103	1,004,953	993,103	1,004,953
West South Central.....	8	6	1,184,057	1,212,057	1,078,198	1,108,695
Mountain.....	9	9	563,912	573,773	563,912	572,773
Pacific.....	6	4	1,888,142	1,934,084	1,434,245	1,469,144



# FOREIGN AND INSULAR

## THE FAR EAST

*Reports for the weeks ended March 20 and March 27, 1926.*—The following reports for the weeks ended March 20 and March 27, 1926, were transmitted by the far eastern bureau of the health section of the League of Nations' secretariat, located at Singapore, to the headquarters at Geneva:

WEEK ENDED MARCH 20, 1926

Port	Plague		Cholera		Small-pox		Port	Plague		Cholera		Small-pox	
	Cases	Deaths	Cases	Deaths	Cases	Deaths		Cases	Deaths	Cases	Deaths	Cases	Deaths
Calcutta.....	0	0	45	47	32		Kobe.....	0	0	0	0	0	0
Bombay.....	0	0	0	27	9		Osaka.....	0	0	0	0	0	0
Madras.....	0	0	4	21	2		Nilgata.....	0	0	0	0	0	0
Rangoon.....	10	0	2	6	2		Tsuruga.....	0	0	0	0	0	0
Karachi.....	0	0	0	4	2		Hakodate.....	0	0	0	0	0	0
Nagapatam.....	0	0	0	2	2		Keelung (Formosa).....	0	0	0	0	0	0
Colombo.....	1	0	0	0	0		Fusan.....	0	0	0	0	0	0
Basra.....	0	0	0	0	0		Chernulpo.....	0	0	0	0	0	0
Singapore.....	1	1	0	0	0		Dairen.....	0	0	0	0	3	0
Port Swettenham.....	0	0	0	0	0		Adelaide.....	0	0	0	0	0	0
Penang.....	0	0	0	0	0		Brisbane.....	0	0	0	0	0	0
Batavia.....	0	0	0	0	0		Fremantle.....	0	0	0	0	0	0
Surabaya.....	1	1	0	0	0		Melbourne.....	0	0	0	0	0	0
Samarang.....	0	0	0	0	0		Sydney.....	0	0	0	0	0	0
Cheribon.....	1	1	0	0	0		Rockhampton.....	0	0	0	0	0	0
Belawan Deli.....	0	0	0	0	0		Townsville.....	0	0	0	0	0	0
Palembang.....	0	0	0	0	0		Port Darwin.....	0	0	0	0	0	0
Padang (Sumatra).....	0	0	0	0	0		Broome.....	0	0	0	0	0	0
Sabang (Rhio).....	0	0	0	0	0		Port Moresby.....	0	0	0	0	0	0
Makassar.....	0	0	0	0	0		Auckland.....	0	0	0	0	0	0
Menado.....	0	0	0	0	0		Wellington.....	0	0	0	0	0	0
Banjerassin.....	0	0	0	0	0		Christchurch.....	0	0	0	0	0	0
Balik Papan.....	0	0	0	0	0		Invercargill.....	0	0	0	0	0	0
Pontianak (Borneo).....	0	0	0	0	0		Noumea (New Caledonia).....	0	0	0	0	0	0
Sandakan (North Borneo).....	0	0	0	0	0		Honolulu.....	0	0	0	0	0	0
Kuching (Sarawak).....	0	0	0	0	4		Suez.....	0	0	0	0	0	0
Timor Dilly.....	0	0	0	0	0		Tor Quarantine Station.....	0	0	0	0	0	0
Manila.....	0	0	0	0	0		Alexandria.....	0	0	0	0	0	0
Dello.....	0	0	0	0	0		Port Said.....	0	0	0	0	0	0
Jolo.....	0	0	0	0	0		Mombasa (Kenya).....	0	0	0	0	1	0
Cebu.....	0	0	0	0	0		Zanzibar.....	0	0	0	0	0	0
Zamboanga.....	0	0	0	0	0		Massowah.....	0	0	0	0	0	0
Bangkok.....	3	2	84	61	8		Djibuti.....	0	0	0	0	0	0
Salon and Cholon.....	0	0	0	0	1		Berbera.....	0	0	0	0	0	0
Haiphong.....	0	0	0	0	0		Mozambique.....	0	0	0	0	0	0
Tourane.....	0	0	0	0	0		Lourenco Marques.....	0	0	0	0	0	0
Hongkong.....	0	0	0	0	1		Durban.....	0	0	0	0	0	0
Shanghai.....	0	0	0	0	8		East London.....	0	0	0	0	0	0
Amoy.....	0	0	0	0	5		Port Elizabeth.....	0	0	0	0	0	0
Nagasaki.....	0	0	0	0	0		Cape Town.....	0	0	0	0	0	0
Yokohama.....	0	0	0	0	10		Port Louis (Mauritius).....	0	0	0	0	0	0
Simonseski.....	0	0	0	0	0		Seychelles.....	0	0	0	0	0	0
Moji.....	0	0	0	0	2								

## WEEK ENDED MARCH 27, 1926

Port	Plague		Cholera		Small-pox		Port	Plague		Cholera		Small-pox	
	Cases	Deaths	Cases	Deaths	Cases	Deaths		Cases	Deaths	Cases	Deaths	Cases	Deaths
Calcutta	0	0	48	44	26	0	Kobe	0	0	0	0	0	0
Bombay	0	0	0	57	13	0	Osaka	0	0	0	0	0	0
Madras	0	0	9	1	1	0	Nagata	0	0	0	0	0	0
Rangoon	14	1	7	2	2	0	Tsuruga	0	0	0	0	0	0
Karachi	0	0	10	1	1	0	Hakodate	0	0	0	0	0	0
Negapatam	0	0	0	3	3	0	Keelung (Formosa)	0	0	0	0	0	0
Colombo	0	0	0	0	0	0	Fusan	0	0	0	0	0	0
Basra	0	0	0	1	1	0	Chemulpo	0	0	0	0	0	0
Singapore	0	0	0	1	1	0	Dairen	0	0	0	0	0	0
Port Swettenham	0	0	0	0	0	0	Adelaide	0	0	0	0	0	0
Penang	0	0	0	0	0	0	Brisbane	0	0	0	0	0	0
Batavia	0	0	0	0	0	0	Fremantle	0	0	0	0	0	0
Surabaya	2	2	0	0	0	0	Melbourne	0	0	0	0	0	0
Samarang	0	0	0	0	0	0	Sydney	0	0	0	0	0	0
Cheribon	3	3	0	0	0	0	Rockhampton	0	0	0	0	0	0
Belawan Deli	0	0	0	0	0	0	Townsville	0	0	0	0	0	0
Palembang	0	0	0	0	0	0	Port Darwin	0	0	0	0	0	0
Padang (Sumatra)	0	0	0	0	0	0	Broome	0	0	0	0	0	0
Sabang (Rho)	0	0	0	0	0	0	Port Moresby	0	0	0	0	0	0
Makassar	0	0	0	0	0	0	Auckland	0	0	0	0	0	0
Menada	0	0	0	0	0	0	Wellington	0	0	0	0	0	0
Banjarmassin	0	0	0	0	0	0	Christchurch	0	0	0	0	0	0
Balik-Papun	0	0	0	0	0	0	Invercargill	0	0	0	0	0	0
Tarakan	0	0	0	0	0	0	Noumea (New Caledonia)	0	0	0	0	0	0
Pontanak (Borneo)	0	0	0	0	0	0	Honolulu	0	0	0	0	0	0
Fandakan (North Borneo)	0	0	0	0	0	0	Suez	1	1	0	0	0	4
Kuching (Sarawak)	0	0	0	2	0	0	Tor Quarantine Station	0	0	0	0	0	0
Timor Dilly	0	0	0	0	0	0	Alexandria	0	0	0	0	0	0
Manila	0	0	0	0	0	0	Port Said	0	0	0	0	0	0
Hoilo	0	0	0	0	0	0	Port Sudan	0	0	0	0	0	0
Jolo	0	0	0	0	0	0	Monibasa (Kenya)	0	0	0	0	0	0
Cebu	0	0	0	0	0	0	Zanzibar	0	0	0	0	0	0
Zamboanga	0	0	0	0	0	0	Missowah	0	0	0	0	0	0
Bangkok	3	3	90	52	6	5	Djibuti	0	0	0	0	0	0
Saigon and Cholon	0	0	2	1	2	0	Berbera	0	0	0	0	0	0
Haiphong	0	0	0	0	0	0	Mozambique	0	0	0	0	0	0
Tourane	0	0	0	0	0	0	Laurence Marques	0	0	0	0	0	0
Hongkong	0	0	0	0	0	0	Durban	0	0	0	0	0	0
Shanghai	0	0	0	0	8	4	East London	0	0	0	0	0	0
Amoy	0	0	0	0	6	4	Port Elizabeth	0	0	0	0	0	0
Nagasaki	0	0	0	0	0	0	Cape Town	0	0	0	0	0	0
Yokohama	0	0	0	0	3	0	Port Louis (Mauritius)	0	0	0	0	0	0
Simotoseki	0	0	0	0	0	0	Seychelles	0	0	0	0	0	0
Moji	0	0	0	0	1	0							

## CANADA

*Communicable diseases—March 28–April 3, 1926.*—The following table shows the number of certain communicable diseases reported in seven Provinces of Canada during the week ended April 3, 1926. The information was supplied by the Canadian Ministry of Health.

Disease	Nova Scotia	New Brunswick	Quebec	Ontario	Manitoba	Saskatchewan	Alberta	Total
Cerebrospinal fever				1				1
Influenza	43				1			44
Smallpox				6	4	1	1	12
Typhoid fever			4	2	4			10

## CUBA

*Communicable diseases—Provinces—January 1-31, 1926.*—Cases of disease were notified in the Provinces of Cuba for the month of January, 1925, as follows:

Disease	Pinar del rio	Habana	Matanzas	Santa Clara	Camaguiay	Oriente	Total
Cerebrospinal meningitis			1		2	2	5
Chicken pox	8	50	7	11	1	7	84
Diphtheria	1	14	3	9	1	1	29
Malaria	1	72	4	4	43	680	804
Measles	2	103	149	14	4	72	344
Paratyphoid fever		3	19	6			28
Scarlet fever	2	16		7			25
Tetanus (infantile)	1		1			1	3
Typhoid fever	10	30	16	22	2	15	95

## HAWAII TERRITORY

*Plague*—A fatal case of plague was reported at Kakuihaele, Island of Hawaii, March 19, 1926.

## PANAMA CANAL

*Communicable diseases—February, 1926.*—During the month of February, 1926, communicable diseases were reported in the Canal Zone, Colon, and Panama, as follows:

Disease	Canal Zone		Colon		Panama		Infected in other localities		Total	
	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases	Deaths
Chicken pox	1				2		1		4	
Diphtheria	3		1		9		1		14	
Dysentery	1		1	1	6	1	6	1	14	2
Hookworm disease			5		43		32		82	
Malaria	55	2	1			1	30		86	3
Measles							6		10	
Meningitis	1	1							1	1
Mumps	6				2		4		12	
Pneumonia				2		16		3		21
Tuberculosis		11		10		2		2		25
Typhoid fever			1	1					1	1
Whooping cough	7		1						8	

## PERU

*Plague—February, 1926.*—During the month of February, 1926, cases and deaths from plague were reported in Peru as follows:

Place	Cases	Deaths	Place	Cases	Deaths
Ayabaca	4	0	Huacho	5	4
Barranca y Supe	4	0	Huancabamba	10	5
Callao	1	1	Huaral (country)	2	0
Cañete	1	0	Jayanca	5	0
Chiclayo	5	4	Lima (city)	7	5
Chimbote (country)	3	3	Lima (country)	15	8
Chincha	5	1	Mollendo	1	1
Chota	2	2	Pucasmayo	6	2
Contumanza	6	3	Pisco	2	1
Cutervo	Present.	0	Salaverry	2	0
Guadalupe	1	0	Trujillo	7	4

**CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER**

The reports contained in the following tables must not be considered as complete or final as regards either the lists of countries included or the figures for the particular countries for which reports are given.

**Reports Received During Week Ended April 23, 1926 <sup>1</sup>****CHOLERA**

Place	Date	Cases	Deaths	Remarks
India.....	Jan. 31-Feb. 6.....	2,952	1,733	
Philippine Islands.....				
Manila.....	Feb. 21-Mar. 6.....	3	1	
Province—				
Batangas.....	Feb. 7-13.....	4	4	
Bohol.....	Jan. 23-30.....	1	1	
Laguna.....	Jan. 31-Feb. 6.....	1	2	
Leyte.....	Jan. 3-9.....	2	2	
Mindoro.....	Dec. 20-31.....	35	30	
Nueva Ecija.....	Dec. 6-12.....	1	3	
Pampanga.....	Feb. 7-20.....	11	9	
Rizal.....	Jan. 3-16.....	76	26	

**PLAGUE**

Azores:				
St. Michaels.....	Feb. 7-13.....	1		In outskirts of city of Ponta Delgada.
China:				
Nanking.....	Feb. 14-Mar. 6.....			Present.
Ecuador:				
Guayaquil.....	Mar. 1-15.....	9	4	Rats destroyed, 10,135; found infected, 71.
Hawaii Territory.....				Feb. 2, 1926: One plague-infected rodent found near Hamakua Mill Co.
Kakuihaele.....	Mar. 19.....		1	
India.....	Jan. 31-Feb. 6.....	4,603	3,121	
Madagascar.....				Jan. 16-31, 1926: Cases, 173; deaths, 132.
Province—				
Moramanga.....	Jan. 16-31.....	20	19	
Tananarive.....	do.....	147	127	
Town—				
Fort Dauphin.....	do.....	1	1	
Tananarive.....	do.....	5	5	
Mauritius Island:				
Moka.....	Dec. 1-31.....	2	2	
Port Lewis.....	do.....	9	8	
Peru.....	Feb. 1-28.....	94	44	
Union of South Africa:				
Winburg District.....	Feb. 21-27.....	1		

**SMALLPOX**

Canada:				
Alberta.....				Mar. 28-Apr. 3, 1926: One case.
Manitoba.....				Mar. 28-Apr. 3, 1926: Cases, 4.
Winnipeg.....	Mar. 28-Apr. 3.....	3		
Ontario.....				Mar. 28-Apr. 3, 1926: Cases, 6.
Saskatchewan.....				Mar. 28-Apr. 3, 1926: One case.
China:				
Amoy.....	Feb. 28-Mar. 6.....		2	
Changsha.....	Feb. 21-27.....			Present.
Chungking.....	do.....			Do.
Foochow.....	Feb. 21-Mar. 6.....			Do.
Hankow.....	Feb. 28-Mar. 6.....	1	1	
Hongkong.....	Feb. 14-27.....	1	1	
Liao-yang.....	Mar. 7-13.....	1		
Manchuria—				
Dairen.....	Feb. 15-Mar. 7.....	20	9	
Harbin.....	Feb. 26-Mar. 4.....	1		
Shanghai.....	Feb. 28-Mar. 13.....	5	23	Cases, foreign only.
Swatow.....	Feb. 21-Mar. 13.....			Prevalent.
Egypt:				
Alexandria.....	Feb. 19-Mar. 4.....	12	5	
Port Said.....	Feb. 26-Mar. 4.....	1		

<sup>1</sup> From medical officers of the Public Health Service, American consuls, and other sources.

# **CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued**

**Reports Received During Week Ended April 23, 1926—Continued**

## **SMALLPOX—Continued**

Place	Date	Cases	Deaths	Remarks
Great Britain:				
England and Wales	Mar. 21-27	178		
Hull	do.	1		
Newcastle-on-Tyne	do.	3		
Greece:				
Saloniki	Mar. 9-15		1	
India	Jan. 31-Feb. 6	6,508	1,422	
Indo-China:				
Saigon	Mar. 1-7	2	1	Including 100 square kilometers of surrounding territory. Reported as alastrim.
Jamaica	Mar. 21-27	59		
Kingston	do.	5		Do.
Japan:				
Yokohama	Mar. 8-14	17	1	
Mexico:				
Guadalajara	Mar. 31-Apr. 6		1	
Mexico City	Mar. 21-27	2		Including municipalities in Federal District.
Vera Cruz	Mar. 29-Apr. 4		1	
Portugal:				
Lisbon	Feb. 14-Mar. 27	42		
Sumatra:				
Medan	Feb. 21-27	1		
Trinidad	Feb. 28-Mar. 20	5		Reported as alastrim.

## **TYPHUS FEVER**

Canary Islands:				
Santa Cruz de Teneriffe	Mar. 8-14	1		
China:				
Antung	Feb. 22-Mar. 7	6		
Egypt:				
Alexandria	Feb. 17-25	1		
Port Said	Mar. 12-18	1		
Mexico:				
Mexico City	Mar. 14-20	5		Including municipalities in Federal District.
Palestine:				
Tel-Aviv	Mar. 9-15	1		
Tiberias	do.	2		
Rumania:				
Constantza	Feb. 21-Mar. 10	1		
Union of South Africa:				
Cape Province	Feb. 14-27			Outbreaks.
Natal—				
Durban	do.	1		
Orange Free State	do.			Do.
Transvaal	do.			Do.

**Reports Received from December 26, 1925, to April 16, 1926<sup>1</sup>**

## **CHOLERA**

Place	Date	Cases	Deaths	Remarks
Chosen	October-November, 1925	12	5	
French Settlements in India	Dec. 1-31	880	712	
India				
Calcutta	Nov. 1-28	101	89	Oct. 18, 1925, to Jan. 2, 1926: Cases, 21,316; deaths, 12,371.
Do.	Dec. 6-26		54	Jan. 3-30, 1926: Cases, 14,906; deaths, 8,327.
Do.	Dec. 27-Jan. 16		41	
Do.	Jan. 24-Mar. 6	207	179	
Madras	Nov. 15-Jan. 2	174	70	
Do.	Jan. 8-Mar. 6	93	60	
Rangoon	Nov. 8-Dec. 5	4	4	
Do.	Jan. 24-Feb. 13	6	3	

<sup>1</sup> From medical officers of the Public Health Service, American consuls, and other sources.

# **CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued**

**Reports Received from December 26, 1925, to April 16, 1926—Continued**

## **CHOLERA—Continued**

Place	Date	Cases	Deaths	Remarks
Indo-China.....				September, 1925: Cases, 9; deaths, 5. September, 1924: Cases, 7; deaths, 4. (European cases, 2.) Including 100 square kilometers of surrounding country.
Province.....				
Annam.....	Sept. 1-30.....	2	2	
Cochin China.....	.....do.....	5	3	
Saigon.....	Jan. 4-17.....	2	2	
Tonkin.....	September, 1925.....	2		
Japan.....	Aug. 30-Oct. 17.....	409		
Do.....	Oct. 25-Dec. 26.....	113		
Philippine Islands:				
Manila.....	Nov. 9-Jan. 3.....	15	10	
Do.....	Jan. 4-Feb. 13.....		26	
Province.....				
Bataan.....	Nov. 30-Dec. 26.....	29	25	
Do.....	Jan. 2-16.....	1	1	
Batangas.....	Jan. 24-30.....	3	3	
Bulacan.....	Oct. 18-Nov. 7.....	92	64	
Do.....	Nov. 23-Dec. 31.....	200	88	
Do.....	Jan. 2-30.....	6	6	
Laguna.....	Nov. 23-Dec. 26.....	18	14	
Do.....	Jan. 21-30.....	4	4	
Nueva Ecija.....	.....do.....	6	2	
Pampanga.....	Nov. 1-7.....	1	1	
Do.....	Nov. 23-Dec. 31.....	113	85	
Do.....	Jan. 2-30.....	27	26	
Rizal.....	Sept. 27-Nov. 21.....	75	21	
Do.....	Dec. 21-30.....	14	11	
Romblon.....	Dec. 7-13.....	23	12	
Russia.....	May-June.....	7		
Do.....	July-August.....	4		
Siam:				
Bangkok.....	Oct. 4-Nov. 14.....	108	68	
Do.....	Nov. 22-Dec. 26.....	270	149	
Do.....	Dec. 27-Feb. 13.....	187	125	
On vessel:				
Steamship.....	Oct. 3.....	9		Arrived at Bangkok, Siam: Cases in coolie passengers.

## **PLAGUE**

Argentina.....				Jan. 24-30, 1926: 6 cases, occurring in interior Provinces of Salta and Santa Fe.
Buenos Aires.....	Jan. 24-30.....	1		
Azores:				
St. Michaels.....	Jan. 17-30.....	4	2	
Brazil:				
Bahia.....	Nov. 8-Dec. 23.....	3	1	
Do.....	Dec. 27-Jan. 30.....	4	2	
Santos.....	Dec. 8-21.....		2	
Sao Paulo.....	Reported Mar. 25.....	4	1	
British East Africa:				
Kenya:				
Kisumu.....	Nov. 22-Dec. 5.....	1	2	
Do.....	Jan. 31-Feb. 27.....	4	3	
Uganda Protectorate.....	Sept. 1-Dec. 31.....	468	426	
Canary Islands:				
La Laguna.....	Dec. 24.....	3	2	
Las Palmas.....	.....do.....	1		
Do.....	Jan. 7.....	1	1	
Santa Cruz de Tenerife.....	Dec. 18-27.....	3		
Do.....	Dec. 28-Feb. 1.....	3		
Celebes:				
Makassar.....	Dec. 20-Feb. 2.....	12	12	Netherlands East Indies.
Ceylon:				
Colombo.....	Nov. 15-Dec. 5.....	3	3	1 plague rodent.
Do.....	Dec. 27-Jan. 16.....	2	2	
Do.....	Jan. 24-Feb. 27.....	4	3	Feb. 14-20, 1926: Two plague rodents.
China:				
Nanking.....	Nov. 15-Jan. 23.....			Prevalent.
Ecuador:				
Eloy Alfaro.....	Jan. 1-15.....	1		
Guayaquil.....	Nov. 1-Dec. 31.....	31	12	
Do.....	Jan. 1-31.....	34	14	
Recreo (country estate).....	.....do.....	1		Rats taken, Nov. 1-Dec. 31, 1925, 49,370; rats found infected, 281. Rats taken, Jan. 1-Feb. 28, 1926, 44,258; rats found infected, 406.

# **CHOLERA; PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued**

**Reports Received from December 26, 1925, to April 16, 1926—Continued**

## **PLAGUE—Continued**

Place	Date	Cases	Deaths	Remarks
<b>Egypt</b> .....				Jan. 1-Dec. 9, 1925: Cases, 138.
Alexandria.....	Mar. 10.....	1	1	
Beni Suef.....	Nov. 18.....	1	1	
Fayoum Province.....	Dec. 3-9.....	1	1	
Gharbia Province.....	Mar. 9.....	1	1	
Minia Province.....	Mar. 4.....	1	1	
<b>Greece:</b>				
Athens.....	Nov. 1-30.....	18	4	Including Piræus.
Do.....	Jan. 1-31.....	14	3	
Herakleion.....	Feb. 4.....	1	1	On island of Crete.
Patras.....	Nov. 13-Dec. 12.....	4	1	
<b>Hawaii Territory:</b>				
Honakaa.....	Mar. 16.....	2		1 death suspected plague.
Panulo.....				Jan. 29, 1926: Plague-infected rat found in vicinity.
<b>India</b> .....				Oct. 18, 1925, to Jan. 2, 1926: Cases, 15,135; deaths, 10,677.
Bombay.....	Dec. 6-12.....	1	1	Jan. 3-30, 1926: Cases, 10,468; deaths, 7,339.
Do.....	Jan. 3-Feb. 20.....		8	
Calcutta.....	Dec. 6-12.....		1	
Karachi.....	Nov. 1-Dec. 19.....	4	3	
Do.....	Feb. 21-Mar. 6.....	3	3	
Madras Presidency.....	Oct. 25-Nov. 7.....	75	41	
Do.....	Nov. 15-21.....	35	22	
Do.....	Dec. 20-26.....	168	64	
Do.....	Jan. 3-9.....	135	53	
Do.....	Jan. 17-Feb. 13.....	579	348	
Rangoon.....	Oct. 25-Dec. 26.....	23	15	
Do.....	Dec. 27-Feb. 27.....	57	49	
<b>Indo-China</b> .....				September, October, 1925: Cases, 25; deaths, 23.
Province.....				
Cambodia.....	Sept. 1-30.....	11	11	
Cochin China.....	September-October.....	14	12	
<b>Iraq:</b>				
Bagdad.....	Dec. 13-Jan. 2.....	7	3	
Do.....	Jan. 10-Feb. 20.....	43	26	
<b>Java:</b>				
Batavia.....	Oct. 24-Nov. 6.....	94	89	Province.
Do.....	Nov. 14-Jan. 1.....	315	297	
Do.....	Jan. 2-Feb. 19.....	369	357	
Cheribon.....	Sept. 27-Oct. 17.....		166	
Do.....	Nov. 15-Dec. 26.....		198	
Do.....	Jan. 3-Feb. 6.....		8	
Djakakarta.....	Oct. 20-Nov. 9.....			Epidemic in 1 locality.
Kediri.....	Dec. 7.....			Do.
Koeningan.....	Dec. 27-Jan. 16.....		114	
Pekalongan.....	Sept. 27-Oct. 17.....		42	
Do.....	Nov. 8-Dec. 26.....		172	
Rembang.....	Oct. 20.....			Do.
Surabaya.....	Oct. 11-Dec. 26.....	59	59	
Do.....	Dec. 27-Jan. 9.....	16	16	
Do.....	Jan. 17-Feb. 13.....	12	12	
Tegal.....	Sept. 27-Oct. 17.....	6	6	
Do.....	Nov. 8-Dec. 26.....		31	
<b>Madagascar</b> .....				Nov. 1-Dec. 31, 1925: Cases, 632; deaths, 593. Jan. 1-15, 1926: Cases, 161; deaths, 151.
Province—				Bubonic, pneumonic, and septicemic.
Ambositra.....	Dec. 16-31.....	9	7	
Do.....	Jan. 1-15.....	2	2	
Itasy.....	Sept. 16-Oct. 31.....	20	20	
Do.....	Nov. 16-Dec. 16.....	34	34	
Do.....	Jan. 1-15.....	29	29	
Moramanga.....	Sept. 16-Dec. 31.....	49	48	
Do.....	Jan. 1-15.....	15	15	
Tananarive.....	Sept. 16-Nov. 30.....	368	341	
Do.....	Dec. 16-31.....	152	143	
Do.....	Jan. 1-15.....	111	100	
<b>Town—</b>				
Fort Dauphin.....	Sept. 16-Nov. 30.....	6	3	
Tamatave (port).....	Sept. 16-30.....	3	2	
Do.....	Oct. 16-Nov. 30.....	9	9	
Tananarive.....	Sept. 16-30.....	2	2	
Do.....	Nov. 1-30.....	11	11	
Do.....	Jan. 1-15.....	4	4	
<b>Mauritius Island</b> .....	Sept. 20-Dec. 26.....	21	18	
Pamplemousses.....	Oct. 1-Nov. 30.....	3	2	
Port Louis.....	do.....	4	1	
Rivière du Remart.....	October.....	2		

# CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—(continued)

Reports Received from December 26, 1925, to April 16, 1926—Continued

## PLAGUE—(continued)

Place	Date	Cases	Deaths	Remarks
Persia:				
Tehran	Oct. 21-Nov. 21		12	
Peru:				January, 1926: Cases, 196; deaths, 67. Reported in 26 localities. Port 60 miles north of Callao. In hospital. Some cases in Province.
Huacho	Jan. 26	15		
Lima	Jan. 1-31	20		
Mollendo	do.			12 or 15 cases reported unofficially.
Russia:	May-June	67		
Do.	July-October	166		
Senegal:	September-October	45	25	
Siam:	Aug. 23-Dec. 26	65	53	
Bangkok	Nov. 15-23	3	3	
Do.	Jan. 3-30	38	33	
Do.	Feb. 7-13	5	4	
Straits Settlements:				
Singapore	Nov. 1-Dec. 5	8	8	
Do.	Jan. 3-9	2	2	
Syria:				
Beirut	Nov. 11-20	1		
Do.	Jan. 21-31	1		
Union of South Africa:				
Cape Province—				
Kimberley district	Dec. 13-19	1		
Middleburg district	Dec. 6-12	1		European.
Steynsburg district	Nov. 15-21	1		Native. On farm.
Orange Free State—				
Boshof district	Nov. 29-Dec. 5	1	1	In native.
Bothaville district	Dec. 6-12	1	1	Native. On farm.
On vessel:				
Steamship Cid				Jan. 29, 1926. At Buenaventura, Colombia. Rat was killed while jumping ashore from vessel.

## SMALLPOX

Algeria:				
Algiers	Nov. 21-Dec. 31	177		
Do.	Jan. 1-10	64		
Do.	Jan. 21-Mar. 10	64		
Arabia:				
Aden	Nov. 29-Dec. 5	1		Imported
Do.	Jan. 10-Mar. 6	10	1	
Argentina:				
Rosario	October		1	
Australia:				
Queensland—				
Brisbane	Dec. 9-15	1		
Bahamas:	Feb. 23			In Nassau district. Stated to have been imported.
Brazil:				
Manaos	Dec. 1-31		12	
Do.	Jan. 31-Feb. 20		6	
Para	Jan. 10-Mar. 6	28	6	
Rio de Janeiro	Nov. 1-28	134	72	
Do.	Dec. 6-26	65	26	
Do.	Dec. 27-Feb. 20	186	131	
British East Africa:				
Kenya				
Mombasa	Nov. 15-Dec. 19	14	6	
Do.	Dec. 27-Jan. 2	1		From mainland.
Uganda Protectorate	Sept. 1-Oct. 31	8	4	
British South Africa:				
Northern Rhodesia	Jan. 5-11	2		
Southern Rhodesia	Nov. 13-Dec. 23	3		



# CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued

Reports Received from December 26, 1925, to April 16, 1926—Continued

## SMALLPOX—Continued

Place	Date	Cases	Deaths	Remarks
Canada				Sept. 13-Jan. 2: In 7 Provinces, 186 cases. Jan 3-Feb. 27, 1926: Cases, 277.
Alberta				Jan. 3-Mar. 27, 1926: Cases, 54.
Calgary	Dec. 13-19	1		From Drumheller, vicinity of Calgary.
British Columbia—				
Vancouver	Jan. 4-Mar. 27	2		
Victoria	Mar. 21-27	2		
Manitoba				Jan. 3-Mar. 27, 1926: Cases, 40.
Winnipeg	Dec. 13-19	2		
Do.	Jan. 3-Mar. 27	12		
New Brunswick—				
Northumberland	Dec. 6-13	1		
Ontario				Dec. 1-31, 1925. Cases, 32. Jan. 2-Mar. 27, 1926. Cases, 198.
Admaston	Jan. 1-Feb. 1	16		Township.
Alice and Fraser	Feb. 1-28	6		Do.
King	do.	7		Do.
Wilmot	do.	6		Do.
Belleville	do.	4		
Kingston	Mar. 8-14	1		
Kitchener	do.	26		
North Bay	Feb. 14-Mar. 14	7		
Ottawa	Dec. 6-12	2		
Do.	Jan. 3-Feb. 6	2		
Sarnia	Mar. 14-20	1		
Toronto	Dec. 27-Jan. 2	1		
Do.	Jan. 3-Mar. 20	26		
Trenton	do.	15		
Saskatchewan				Jan. 3-Mar. 27, 1926: Cases, 72.
Moose Jaw	do.	2		
Regina	Jan. 24-Mar. 13	3		
Saskatoon	Feb. 14-20	1		
Ceylon:				
Colombo	Dec. 6-12	1		Port case.
Do.	Jan. 3-Feb. 6	5		
Chile:				
Punta Arenas	Dec. 13-26		8	
Do.	Dec. 27-Jan. 2		4	
China:				
Amoy	Oct. 25-Dec. 19		1	
Do.	Jan. 10-Feb. 13		9	
Antung	Dec. 7-20	2		
Chungking	Nov. 15-Feb. 20			Present.
Foochow	Nov. 1-Feb. 13			Do.
Hankow	Nov. 14-Dec. 26	4		
Do.	Jan. 10-Feb. 20	2		
Hongkong	Nov. 22-Dec. 26	4		
Do.	Jan. 3-Feb. 13	8	3	
Manchuria—				
An-shan	Dec. 6-12	1		
Do.	Jan. 10-Feb. 13	6		South Manchurian Railway.
Changchun	Jan. 10-Feb. 27	20		Do.
Dairen	Oct. 19-Dec. 27	73	15	
Do.	Dec. 28-Feb. 14	57	15	
Fushun	Jan. 17-23	1		Do.
Harbin	Jan. 1-Feb. 13	2		
Kai-yuan	Jan. 10-30	4		Do.
Kungchuling	Jan. 31-Feb. 20	2		
Lio-yang	Jan. 17-23	1		Do.
Mukden	Oct. 24-Nov. 15	1		Do.
Do.	Jan. 24-Feb. 27	4		Do.
Tieh-ling	do.	2		
Nanking	Nov. 21-Dec. 26			Present.
Do.	Dec. 27-Feb. 13			Do.
Shanghai	Oct. 25-Jan. 2	37	36	
Do.	Jan. 3-Feb. 27	51	103	Cases, foreign only
Swatow	Nov. 22-Feb. 20			Prevalent.
Tientsin	Nov. 1-Dec. 19	2		
Do.	Jan. 23-30	1		
Chosen:				
Selshin	Jan. 1-31	5	2	

# CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued

Reports Received from December 26, 1925, to April 16, 1926—Continued

## SMALLPOX—Continued

Place	Date	Cases	Deaths	Remarks
Egypt.				
Alexandria.....	Dec. 3-31.....	5	2	
Do.....	Jan. 8-14.....	2	1	
Do.....	Jan. 29-Feb. 18.....	10	1	
Estonia.....				November, 1925: Cases, 3.
France.....				September-December, 1925: Cases, 253.
Havre.....	Jan. 25-31.....		9	
Paris.....	Mar. 1-10.....	5	1	
Gold Coast.....	September, De- cember.	58	5	
Great Britain:				
England and Wales.....				Nov. 15-Dec. 26, 1925: Cases, 790. Dec. 27-Mar. 20, 1926: Cases, 3,303.
Hull.....	Dec. 27-Jan. 23.....	29		
Do.....	Feb. 7-Mar. 13.....	8		
Leeds.....	Jan. 14-Feb. 6.....	4		
London.....	Jan. 31-Feb. 6.....		1	
Newcastle-on-Tyne.....	Nov. 29-Dec. 19.....	6		
Do.....	Dec. 27-Mar. 13.....	32		
Nottingham.....	Nov. 22-Dec. 26.....	9		
Do.....	Dec. 27-Feb. 27.....	3		
Sheffield.....	Nov. 22-Dec. 12.....	7		
Do.....	Dec. 20-26.....	3		
Do.....	Dec. 27-Mar. 20.....	18		
South Shields.....	Feb. 9.....			Reported present in severe form Oct. 1-31, 1925: Cases, 16.
Greece.....				
Athens.....	Nov. 1-Dec. 31.....	18	1	
Do.....	Jan. 1-Feb. 28.....	50	3	
Kalamata.....	Mar. 1-7.....	1		From Patras
Saloniki.....	Feb. 16-22.....		1	
India.....				Oct. 18-Dec. 26, 1925: Cases, 19,472; deaths, 4,440. Dec. 27, 1925-Jan. 30, 1926: Cases, 29,832; deaths, 10,009.
Bombay.....	Nov. 8-Dec. 26.....	26	20	
Do.....	Dec. 27-Feb. 20.....	113	53	
Calcutta.....	Nov. 29-Dec. 26.....	48	25	
Do.....	Dec. 27-Feb. 27.....	370	225	
Karachi.....	Nov. 1-21.....	23		
Do.....	Nov. 29-Dec. 5.....	4	2	
Do.....	Dec. 13-19.....	3		
Do.....	Dec. 20-Mar. 6.....	79	24	
Madras.....	Jan. 24-Mar. 6.....	34	6	
Rangoon.....	Oct. 25-Nov. 28.....	3		
Do.....	Dec. 6-26.....	4	1	
Do.....	Dec. 27-Jan. 16.....	13	1	
Do.....	Jan. 24-30.....	6		
Do.....	Jan. 31-Feb. 27.....	50	9	
Indo-China.....				September-October, 1925: Cases, 204; deaths, 62.
Province—				
Annam.....	Sept. 1-Oct. 31.....	90	23	
Cambodia.....	.....do.....	72	30	
Cochin China.....	.....do.....	61	30	
Saigon.....	Dec. 21-27.....	2	1	
Do.....	Jan. 1-Feb. 7.....	6		
Tonkin.....	Dec. 2-Jan. 2.....	22		Including 100 kilometers of sur- rounding country.
Iraq:				
Bagdad.....	Nov. 1-Dec. 26.....	19	15	
Do.....	Dec. 27-Feb. 20.....	15	7	Sept. 6-Oct. 17, 1925: Cases, 81; deaths, 40.
Basra.....	Dec. 27-Feb. 13.....	40	32	
Italy.....				
Catania.....	Feb. 15-28.....	1		Aug. 2, 1925: Jan. 2, 1926: Cases, 52. Jan. 3-16, 1926: Cases, 12
Genoa.....	Jan. 21-Feb. 10.....	4	1	
Rome.....	Oct. 12-25.....	1		
Jamaica.....				Nov. 29-Dec. 26, 1925: Cases, 95. Dec. 27, 1925-Feb. 27, 1926: Cases, 260. Reported as alast- trim.
Kingston.....	Nov. 29-Dec. 26.....	43		Reported as alasttrim.
Do.....	Dec. 27-Jan. 30.....	48		Do.
Japan.....				
Nagasaki.....	Feb. 15-21.....	1		
Taiwan.....	Nov. 11-Dec. 10.....	3		
Yokohama.....	Dec. 14-20.....	1		
Do.....	Feb. 23-Mar. 7.....	21	4	

# **CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued**

**Reports Received from December 26, 1925, to April 16, 1926—Continued**

## **SMALLPOX—Continued**

Place	Date	Cases	Deaths	Remarks
Java:				
Batavia	Oct. 24-30	1		
Do.	Nov. 14-Dec. 25	7		
Buitenzorg	Nov. 29-Dec. 5	1		
Cheribon	Nov. 8-Dec. 12	2		
Do.	Jan. 31-Feb. 6		1	
Kraksaan	Oct. 11-17	11		
Malang	Oct. 11-Jan. 16	13		
North Bantam	Oct. 4-17	4		
Pekalongan	Oct. 25-31	1		
Pontianak	Oct. 31-Feb. 6		1	
Probolinga	Oct. 11-17	1		
South Bantam	Oct. 11-17	1		
Surabaya	Oct. 11-Dec. 25	633	104	
Do.	Dec. 27-Feb. 13	131	40	
Tegal	Oct. 4-10	9	1	
Latvia				December, 1925: Cases, 3.
Malta	Nov. 1-Dec. 21	21	3	
Do.	Jan. 1-Feb. 28	20		
Mexico				July-September, 1925: Deaths, 1,157.
Aguascalientes	Dec. 13-Jan. 2	4	3	
Do.	Jan. 2-30		7	
Do.	Feb. 14-Mar. 27		12	
Durango	Dec. 1-31		1	
Do.	Jan. 1-31		2	
Guadalajara	Dec. 27-Mar. 29		15	
Mexico City	Nov. 28-Dec. 5	1		Including municipalities in Federal District.
Do.	Jan. 3-Mar. 13	5		Do.
San Luis Potosi	Jan. 17-Mar. 20		53	
Tampico	Dec. 21-Jan. 2	1	1	
Do.	Jan. 2-Mar. 10	8		
Torreón	Nov. 1-Dec. 31		51	
Do.	Jan. 1-Feb. 28		54	
Netherlands				
The Hague	Jan. 30-Mar. 6	2	1	
Nigeria				August-November, 1925: Cases, 347; deaths, 6.
Palestine:				
Hebron	Jan. 26-Feb. 1	2		
Tiberias	Feb. 9-15	1		
Persia:				
Teheran	July 23-Dec. 22		775	
Peru:				
Arequipa	Oct. 1-Dec. 31		2	
Poland				Nov. 1-28, 1925: Cases, 9.
Portugal:				
Lisbon	Oct. 4-31	124		
Do.	Nov. 16-Dec. 27		60	
Do.	Nov. 14-Dec. 26	187		
Do.	Dec. 27-Feb. 28	87	29	
Oporto	Nov. 22-Dec. 19	2	3	
Do.	Dec. 27-Mar. 6	3	1	
Rumania	August-October	3		
Russia				May-June, 1925: Cases, 2,333.
Do.				July 1-Oct. 31, 1925: Cases, 1,563.
Siam				July 12-Sept. 5, 1925: Cases, 21; deaths, 6.
Bangkok	Dec. 20-25	3	1	
Do.	Dec. 26-Feb. 13	51	17	
Sierra Leone				
Konno district	Dec. 16-31	5		
Spain:				
Madrid	Year 1925		18	
Do.	Jan. 1-31		1	
Malaga	Nov. 29-Dec. 5		2	
Do.	Dec. 27-Jan. 2		1	
Valencia	Dec. 20-23	1		
Do.	Dec. 27-Jan. 2		1	
Do.	Jan. 10-Feb. 6	9		
Do.	Feb. 14-Mar. 12	7		
Straits Settlements:				
Singapore	Dec. 20-26	1		
Do.	Jan. 10-16	2	1	
Switzerland				June 28-Nov. 21, 1925: Cases, 62;
Lecourne	Oct. 1-Nov. 30	8		Dec. 27, 1925-Jan. 30, 1926:
Do.	Jan. 1-31	5		Cases, 37.
Zurich	Dec. 27-Jan. 2	1		

# **CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued**

**Reports Received from December 26, 1925, to April 16, 1926—Continued**

## **SMALLPOX—Continued**

Place	Date	Cases	Deaths	Remarks
Trinidad (West Indies):				
Port of Spain	Jan. 1-Feb. 20	3		
Tunisia:				
Tunis	Nov. 21-30	2		
Do.	Dec. 11-31	10	1	
Do.	Jan. 1-Feb. 20	6		
Union of South Africa:				
Cape Province	Jan. 17-23			Outbreaks.
Orange Free State—				
Kuruman district	Jan. 10-16			Do.
Ladybrand district	Dec. 27-Jan. 2			Do.
Transvaal—				
Bellast district	do.			Do.
Germiston district	Jan. 2-9			Do.
Pretoria district	Dec. 6-12			Outbreaks. In native compound.
On vessel	Feb. 21	2		Mexican steamer Montezuma, at Port of Ensenada, Mexico.

## **TYPHUS FEVER**

Algeria:				
Algiers	Nov. 1-Dec. 20	2		
Do.	Jan. 1-Feb. 28	9		
Argentina:				
Resario	Oct. 13-Dec. 31	2		
Bulgaria:				
Sofia	Sept. 1-Dec. 31	50	3	
Do.	Dec. 25-31	1		
Do.	Jan. 8-14	2		
Chile:				Dec. 15-31, 1925: Cases, 46.
Achao	Dec. 15-31	1		
Bulnes	do.	1		
Chillan	do.	21		
Concepcion	do.	6		
Linares	do.	1		
Los Angeles	do.	5		
Penco	do.	2		
San Carlos	do.	1		
Talca	do.	1		
Valparaiso	do.	4		
Do.	Nov. 23-Jan. 2		2	
China:				
Antung	Nov. 20-Dec. 27	5	1	
Do.	Jan. 4-10	1		
Hongkong	Dec. 27-Jan. 2	1		
Manchuria:				
Harbin	Dec. 17-Feb. 4	3		
Czechoslovakia	October-December	145	1	
Egypt:				
Alexandria	Jan. 8-14	1		
Cairo	Nov. 5-Dec. 16	3	2	
Port Said	Nov. 19-25	1		
Esthonia	Jan. 1-31	6		
Finland				October, 1925: 1 case.
France	July-October	4		
Germany	Oct. 25-31	1		
Greece				December, 1925: Cases, 12.
Athens	Nov. 1-30	11	2	
Do.	Jan. 1-Feb. 23	38	7	
Saloniki	Dec. 29-Jan. 4	1		
Do.	Feb. 2-8	1		
Hungary				November-December, 1925: Cases, 16.
Ireland:				
Cork County—				
Cork	Dec. 26-Jan. 1	2		
Do.	Jan. 2-8	5		
Dumanway	Nov. 14	1		
Galway County	Oct. 17	1		
Kerry County—				
Listowel	Mar. 7-13	1		Rural district.
Wexford County—				
Garry	do.	1		Do.
Larva	October-December	4		
Lithuania				September-October, 1925: Cases, 9; deaths, 1.

# CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued

• Reports Received from December 26, 1925, to April 16, 1926—Continued

## TYPHUS FEVER—Continued

Place	Date	Cases	Deaths	Remarks
Mexico				July-September, 1925: Deaths, 96.
Aguascalientes	Dec. 14-19	1		
Durango	Dec. 1-31		1	
Do	Jan. 1-31		1	
Guadalajara	Dec. 8-28		2	
Do	Dec. 29-Jan. 4		1	
Mexico City	Nov. 22-Dec. 26	145		Including municipalities in Federal District.
Do	Dec. 27-Mar. 6	79		Do.
San Luis Potosi	Feb. 6-13		1	
Tampico	Dec. 21-Jan. 10	1	1	
Torreon	November, 1925		1	
Veru Cruz	Feb. 12		1	
Morocco	August-December	93		
Norway				November-December, 1925: Cases, 2.
Palestine:				
Gaza	Dec. 18	1		
Jaffa	Dec. 17	1		
Do	Feb. 23-Mar. 1	1		
Nazareth	Nov. 3-9	1		
Safad	Nov. 24-30	1		
Tel-Aviv	do	1		
Peru:				
Arequipa	October-December		3	
Poland	Oct. 11-Nov. 18	215	26	
Do	Nov. 29-Jan. 2	247	15	
Do	Jan. 3-16	190	14	
Rumania				July-October, 1925: Cases, 181; deaths, 22.
Constantza	Feb. 1-10	1		
Russia				May-June, 1925: Cases, 10,680.
Do				July-October, 1925: Cases, 6,036.
Turkey				
Constantinople	Jan. 24-30	3		
Do	Feb. 9-22	5	3	From unofficial sources (press).
Union of South Africa				October, 1925: Cases, 88; deaths, 7 (colored). Cases, European, 7. December, 1925: Cases, 78; deaths, 9. Colored: Cases, 73; deaths, 9. January, 1926: Cases, 94; deaths, 18. European cases, 5.
Cape Province	Oct. 1-31	63	5	Colored.
Do	Nov. 8-Dec. 31	47	8	
Do	Jan. 1-31	74	14	Do.
Grahamstown	Jan. 24-30	2		
Middleburg district	Dec. 6-12	1		European. On farm.
Natal	Oct. 1-Dec. 5	1		
Do	Jan. 1-31	9	1	Colored.
Durban	Jan. 3-Feb. 27	3		
Orange Free State	Nov. 20-Dec. 5	23	1	
Do	Dec. 1-31	8	1	
Do	Jan. 1-31	6	3	Do.
Bethulia district	Dec. 6-12			Outbreaks.
Bethulia district	do	1		Native. On farm.
Transvaal	Oct. 1-31	1	1	
Do	Dec. 1-31	13		
Bloemhof district	Dec. 27-Jan. 2			Outbreaks. On farm.
Johannesburg	Mar. 1-6	2		
Yugoslavia				Jan. 1-Feb. 21, 1926: Cases, 81; deaths, 12.

## YELLOW FEVER

Gold Coast	Sept. 1-Dec. 31	4	3
Nigeria	August-October	3	2
Senegal	November, 1925	3	2



TREASURY DEPARTMENT

# PUBLIC HEALTH REPORTS

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## SPECIAL ARTICLES

Reorganization of the National Health Service of Chile  
The Intensive Treatment for Hay Fever



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## UNITED STATES PUBLIC HEALTH SERVICE

HUGH S. CUMMING, *Surgeon General*

### DIVISION OF SANITARY REPORTS AND STATISTICS

Asst. Surg. Gen. B. J. LLOYD, *Chief of Division*

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# PUBLIC HEALTH REPORTS

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## THE NATIONAL HEALTH SERVICE OF CHILE

### Résumé of the Work During the Last Six Months of the Year 1925

By DR. LUCAS SIERRA, Director General of Health of Chile

Dr. John D. Long, technical adviser in public health to the Ministry of Hygiene, arrived from the United States and began work July 13, 1925. The director general, the legal adviser, the secretary, and other officers of the health service at once associated themselves with Doctor Long with a view to making a complete study of the existing organization and the laws and regulations under which it operated as a preliminary step to its complete reorganization and modernization.

The first matter of importance undertaken was to bring about the inclusion in the new constitution, which was at that time being drafted, of a provision which should guarantee the maintenance of a national health service and provide, at the same time, a constitutional basis upon which the service could operate. To this end, President Alessandri was visited, and, after free discussion of various propositions, the provisions quoted below were included in the new constitution and were adopted without change by the plebiscite on August 30, 1925:

The exercise of the property right is subject to the limitations or rules that the maintenance and progress of the social order may require. And in this sense the law can impose obligations or easements of public utility in favor of the general interests, of the State, of the health of its citizens, and of the public health. (Art. 10, par. 10.)

Also:

It is the duty of the State to safeguard the public health and the hygienic well-being of the country. There shall be provided each year a sum of money sufficient to maintain a national service of public health. (Art. 10, par. 14.)

Based upon the authority above quoted, the Sanitary Code of Chile was drafted. In the drafting of the Sanitary Code previous laws and regulations were given full consideration. The experiences of and results obtained in other countries were freely drawn upon. The code was adapted so as to conform to the legal and administrative procedures in use in the Government. Public health was recognized as a profession or specialty, and provision was made for a corps of health officers who should devote the major part of their

time to their official duties from the effective date of the code, and at the expiration of five years, through deprivation of the right to practice their profession as physicians, should devote their entire time to their official duties.

The salaries of these technical officers were fixed at as reasonably low figure as could be arrived at, taking into consideration the fact that private practice will eventually be prohibited, that full time is to be devoted to official duties, and that within a short time no other source of income will be available to the average health officer.

The basic salary of the health officers was established after careful study of the salaries paid to similar officers in the United States, Cuba, Panama, the Philippine Islands, and those countries of Latin America which have a health service similar to the service provided by the Sanitary Code. That portion of the code which provides for the creation of a corps of technical officers, and provides for these officers reasonable salaries, reasonable promotion, and security of tenure in office, and obligates them to devote their full time to their work, is believed to be of fundamental importance, and is, in fact, the key-stone of the arch upon which the whole structure rests.

It has been the experience of all countries, including Chile, that part-time health officers do not give satisfactory service, the inevitable result being that death rates do not come down, and morbidity rates continue as they were.

The draft of the Sanitary Code was completed, and presented to the Minister of Hygiene September 4, 1925. After careful study by the medical society, the faculty of medicine, and by a special committee appointed by the Minister of Hygiene, a unanimous recommendation was made that the code be adopted without material changes.

The code became law October 13, 1925. Immediately after the adoption of the code, the work of organization in accordance with its provisions was begun. Physical examinations were held of all existing officers and employees, and those found physically unfit were recommended for retirement in accordance with the retirement laws. Those found physically fit were carefully studied as to their qualifications and abilities by various commissions appointed by the director of health, and recommended for appointment and designation to the various positions which they now hold. As soon as the appointments recommended were approved by the Government, the officers were assigned to their various stations and duties.

The entire Republic was divided into sanitary zones, 10 in number, the division being subsequently approved by the President of the Republic. A scheme of organization was developed, and a chart was prepared which illustrates and explains the type of organization adopted. The scheme of organization provides for sanitary service in every part of the Republic, through the establishment of boards

of health in such cities as are of sufficient size to maintain such boards; through the provision of municipal sanitary districts in other cities that are so situated as to make it advantageous to combine two or more cities in such districts; and through the subdivision of the sanitary zones into what are known as "sanitary divisions." These divisions are to contain from one to four small municipalities which, under existing conditions, are financially unable to maintain a sanitary service of their own. The communities or towns comprising a sanitary division are required to set aside from 5 to 10 per cent of their gross income, the Government contributing a like amount as soon as the various municipalities have signified their assent to the formation of the division.

Following the activities above outlined, attention was then directed toward the preparation of the regulations necessary for the application of the law.

The first regulations drafted were the maritime and frontier quarantine regulations for the prevention of the introduction of disease from other countries through international commerce. These regulations are based upon and prepared in accordance with the provisions of the Pan American Sanitary Code, an international sanitary treaty prepared and signed by the representatives of 18 of the 21 Republics of the Pan American Union.

The Pan American Sanitary Code to date has been ratified by the following countries, in the order of ratification: The United States, Cuba, Peru, Chile, and Costa Rica. From information recently obtained, several other countries will ratify within a relatively short period. The object of the Pan American Sanitary Code is to bring about an international standardization of sanitary measures in the Western Hemisphere for the purpose of preventing the international spread of disease and, at the same time, to accomplish the eradication of diseases of international importance within those countries where such diseases still exist. The treaty specifically provides that such measures are to be applied for the purpose of obtaining the greatest protection against disease, at the same time eliminating all unnecessary hindrances to international commerce and communications.

The quarantine regulations which have been adopted and are now in effect have been drafted so as to conform strictly to the treaty provisions referred to above and should be productive of the highest degree of protection with a minimum of hindrance to international commerce and communications.

Regulations were also prepared and have been adopted for the control of the importation, distribution, and sale of habit-forming drugs, such as opium and its derivatives, and coca and its derivatives. These regulations were drafted in accordance with the most

modern ideas and practices and are designed to limit the use of such drugs and their derivatives to medical purposes only, thereby exceeding the provisions of the opium treaty signed in Geneva. The treaty of Geneva limits international traffic in such drugs in general terms only and does not strike at the root of the matter by agreeing to limit production in producing countries to the estimated medicinal needs of the world.

Regulations were drafted to regulate the practice of medicine and other branches of the healing art. These regulations are also based upon the most modern practices in this respect and indirectly establish the principle that the practicing physician has definite responsibilities to the public by providing that he must report all cases of communicable disease to the health authorities, to the end that adequate measures may be taken to protect the public health. The physician is also made responsible for the proper isolation, in the home, of patients suffering from communicable disease, and for proper disinfection throughout the course of the illness, for the purpose of preventing the spread of infection to members of the family of the patient or to other families. The regulations also call the attention of the physicians to the need for instructing their clients, in the course of their practice, in matters pertaining to hygiene and public health, and particularly to the necessity for systematic vaccination for the prevention of smallpox.

Regulations have been provided for the control of prostitution which define the practices which shall be considered as contributing to or fomenting prostitution and establish the legal measures for the effective suppression of this commercialized vice and disseminator of disease.

Administrative regulations for the internal conduct of the national health service headquarters have also been prepared and approved, and are now in force. The functions and duties of administrative officers and employees are defined in detail, and administrative procedures and methods have been prescribed in such manner as will materially expedite the work of the various divisions and sections and maintain a relatively high standard of administrative efficiency. A chart of the functions and duties of the various departments and sections of the entire health service has also been prepared in such manner that by simply referring to the chart each officer and employee may readily determine the nature of his functions and duties, and the legal basis upon which such functions and duties rest.

In the sanitary engineering division, there is now in the course of preparation a set of regulations relative to the construction and maintenance of sewage systems for small cities, villages, rural towns, and isolated homes that are so situated as not to have access to a general sewage system. These regulations include an innovation in the form

of a sewage disposal system of such simplicity that it may be constructed by the ordinary individual at a nominal cost. There can be no doubt as to the efficiency of the system just mentioned, as several hundred thousand similar installations have been made with uniformly satisfactory results in other countries having soil conditions almost identical with the soil conditions of Chile. The regulations just referred to are now undergoing a final reading, and within a short time will be ready for approval and promulgation.

A Municipal Sanitary Code is also in the course of being drafted. This sanitary code will be based upon the sanitary ordinances now existing in the principal cities of the Republic, upon the general provisions of the National Sanitary Code, and upon the most modern experiences of cities of other countries with somewhat similar problems. The Municipal Sanitary Code, when completed, will be submitted to the city of Santiago for approval and adoption, and it is expected that it will serve as a model for the remaining cities of the Republic, with such slight modifications as conditions may require. The Municipal Sanitary Code will particularly stress the establishment of standards of food and milk production and will prescribe adequate measures that should permit, eventually, of the provision of a good milk supply from the various standpoints of purity, quality, and freedom from the possibility of conveying infectious diseases. All other factors of sanitary importance will also be treated in the Municipal Sanitary Code, in accordance with the most modern experiences that have given satisfactory results.

Regulations for the physical examination of the school children of the country are also in preparation, and a standard form is being provided, upon which the results of the physical examinations will be noted. As a result of the physical examinations that are to be made, it is fully expected that the great majority of the physical defects of children will be detected in early youth and their parents induced to take the necessary measures to have them corrected through the agency of the family physician, of the hospital, or of the dispensary, as individual cases may require. In addition to the physical examinations of the school children, the regulations will also provide means through which sanitary defects that may have been noted or discovered in school buildings can be corrected.

To sum up, it may be stated that during the last six months of 1925, Chile has been provided with the necessary constitutional guaranties for the maintenance and operation of an adequate national health service; with an organic law which provides the necessary machinery and authority to insure efficient operation; and with an organization and the regulations necessary for the application of much needed health measures.

In addition, a school for the preparation and education of public health nurses has been provided. Premises have been acquired that are adequate for the purpose, and are now being adapted to the needs of the school. It is hoped that it will be possible to inaugurate the school sometime during the month of March, 1926. A competent woman, with many years of experience in nursing, has been contracted for as the directress of the school. She has had some 20 years of experience in the United States, Mexico, and Panama, and is thoroughly familiar with the language and customs of the people with whom she will have to deal.

During the course of the six months' period covered by this report, the director general of health and the technical adviser have made a number of visits to various parts of the Republic of Chile for the purpose of studying the sanitary conditions, the existing sanitary organizations, their methods of operation, and the prevailing causes of morbidity and mortality. As the result of these visits, the general conclusion is that morbidity and mortality are generally much higher than they should be and that water supplies, as a rule, are insufficient in quantity and of impure quality in that they are frequently subject to contamination from human sources.

Numerous public conferences have been held and addresses have been made. It has been the universal experience that the people as a whole are intensely interested in all that pertains to the improvement of public health. The interest and enthusiasm shown have been without a single exception most marked. This fact has forced the belief that an adequate health organization properly conducted will, without the slightest doubt, produce prompt and satisfactory results in diminishing the existing excessive morbidity and mortality throughout the entire Republic.

As an earnest of what can be accomplished in the reduction of morbidity and mortality, it is sufficient to state that on or about August 1, 1925, a campaign was started for the extermination of the ordinary house fly in the city of Santiago and later extended to the cities of Talca, Concepción, Valparaíso, and other cities. The results obtained have been very satisfactory, and it is definitely known by the health authorities, and generally recognized by the public at large, that flies are much less numerous in the cities named during the present summer season than they have ever been before.

In Santiago, the only city where statistics are available bearing on the result of the fly extermination campaign, which was there carried on with the cooperation of the intendente municipal (mayor) in the cleaning of the streets and the removal of manure and refuse; and on the result of the campaign of public health education that has been consistently conducted through the public press and through conferences and addresses, the infant mortality during the



last six months of 1925 was 45.4 per cent lower than in the same period of 1923, and 31.4 per cent lower than in the last half of 1924. That is to say, 1,417 fewer children died in the last six months of 1925 than in the corresponding period of 1923, and 780 fewer than in the last six months of 1924. The results just cited can not be considered otherwise than highly satisfactory, especially when it is taken into consideration that the results were obtained almost without authority of law, and with very scanty financial resources. It is not too much to hope that similar results of an equally satisfactory nature can eventually be obtained throughout the entire Republic as soon as the organization provided for in the National Sanitary Code is in full operation.

In closing it is desirable to invite attention to the fact that good results in the reduction of the excessive infantile mortality can also be obtained through the adoption of measures which will be briefly described, but which, unfortunately, are beyond the power of the national health service to place in effect. There are a number of hospitals throughout the Republic of Chile. There are available in the city of Santiago approximately 3,500 hospital beds. A careful study of the statistics and numerous conferences with physicians and specialists have shown that the infant mortality in Chile constitutes about one-third of the total mortality. Of the infants who die before reaching the age of one year, approximately 60 per cent die during the first month of life. If the mothers of these children could be admitted to a hospital about 10 days before the baby is born, and kept in hospital for from three to four weeks after the birth of the child, the excessive mortality during the first month of life could undoubtedly be reduced between 80 and 90 per cent. Such reduction would bring about a reduction in the average general mortality of more than one-sixth, thereby reducing the average mortality of the country from 32.8 per 1,000 to approximately 27 per 1,000.

It is not too much to hope that the additional measures that will be taken through the public health nurses and the other agencies of the health service will bring about a still further reduction in the remaining 11 months of the average infant's first year of life, thereby reducing the general mortality to approximately 25 per 1,000, which would represent a total saving to the country of 29,200 lives per year. In the numerous hospitals that exist, very little effort should be required to set aside the necessary number of beds to attend to the needs of expectant mothers and effect the saving of life above indicated. In this respect Chile has an unusual and exceptional opportunity to bring about a reduction of its total mortality in a very marked manner and within a very short period of time.

Due to aroused public opinion and to the cooperation given by the department of public works, the water division of the city of

Santiago, and the national office of water and sewage, notable progress has been made in improving public water supplies.

The cities of Santiago, Los Leones, San Antonio, Talca, Cartagena, San Carlos, and Coquimbo will shortly have their entire water supplies sterilized with chlorine. The necessary apparatus has already arrived for some cities and the orders have been placed for the apparatus and supplies needed by the other cities.

It is understood that the cities of Ovalle, Los Leones, San Antonio, Constitucion, Melipilla, San Felipe, and Los Andes, which had insufficient water formerly, either have now or shortly will have water in sufficient quantity for all domestic needs. An engineering commission is now at work making the necessary studies of available sources of supply preliminary to construction of a new water system for the city of Valparaiso.

### DECREASE IN INFANTILE MORTALITY IN SANTIAGO, CHILE

An editorial in *El Mercurio* for February 11, 1926, published in Santiago, Chile, calls attention to the considerable reduction in the infantile mortality for the city of Santiago, which is attributed to the work of the new sanitary organization.

In 1923 the number of infant deaths in Santiago was 4,971; in 1924, it dropped to 4,464; and in 1925 it was further reduced to 3,195. As compared with 1923, there were 507 infant lives saved in Santiago in 1924, and in 1925 there were 1,776 fewer infant deaths than in 1923.

The table gives a comparison of the infantile mortality in Santiago for the three years, and also a comparison of the figures for the last six months of each of the years.

#### *Infant mortality in Santiago, Chile*

##### BY YEARS

	1923	1924	1925
Total number of infant deaths.....	4,971	4,464	3,195
Monthly average.....	414	372	266
Reduction as compared with preceding year.....		507	1,269
Per cent reduction.....		10.2	28.4

##### BY LAST SIX MONTHS

Total number of deaths.....	3,120	2,483	1,701
Monthly average.....	520	414	283
Reduction as compared with preceding year.....		637	780
Per cent reduction.....		20.4	31.4

## THE INTENSIVE TREATMENT FOR HAY FEVER

By WILLIAM SCHEPPEGRELL, M. D., President, The American Hay Fever Prevention Association; Surgeon in charge, Department of Hay Fever and Asthma, Charity Hospital, New Orleans, La.

Since it became established that seasonal hay fever is due to pollens, it has been realized that the prevention and cure of this disease depend upon immunological methods directed against such pollens. Allergists have, therefore, given their special attention to the development of methods by which the resistance of the patient could be raised so that he would no longer be sensitive to the proteins of such pollens.

Theoretically, the subject is quite simple. It would be necessary only to inject the patient with progressive doses of the incriminated pollen or pollens until the amount absorbed from the hypodermic injections would be in excess of that absorbed from the atmospheric pollens, and thus the attack would be prevented. It has, of course, long been realized that hay fever is not a local disease involving the nose (hay fever), the eyes (conjunctivitis), the bronchial tubes (asthma), or the skin (dermatitis), but that these symptoms are simply local manifestations of a general sensitivity.

The difficulty presented in the administration of this treatment, however, was the danger that the increasing doses might develop an anaphylactic shock that might have serious consequences.

An anaphylactic shock is one of the most dramatic manifestations in the treatment of allergic diseases. It depends upon various conditions that are ascertained only by the experienced allergist; and even when these conditions are known and guarded against, it sometimes occurs. The following case illustrates the danger encountered when proper precautions are not taken:

A physician of New Orleans, in treating a hay-fever subject, made an error in the strength of the extract, and instead of giving doses of 50, 75, and 100 units of ragweed extract, as intended, he gave injections of 500, 750, and 1,000 units. These large doses appeared to have no disagreeable effect on the patient. Two weeks later, in treating another patient, he injected 25 units, and the patient promptly developed alarming anaphylactic shock. This case illustrates the fact that while the immunizing treatment of hay fever has proved a great boon to mankind, it is not without its hazards, and should be administered accordingly.

In the early treatment of hay fever, the injections were made at intervals of three or four days with a view to allowing the reaction from each dose to subside before making the next injection. Also, the injections were made with slowly increasing doses. The combination of these two methods resulted in making it difficult to obtain a high dose without a prolonged treatment. In 1924 we commenced to increase the doses more rapidly, with resulting im-

provement, and in 1925 we reinforced this by making the injections at shorter intervals. These were given, during the first part of the treatment, once daily, and, in the case of visitors to the city, in which time was a special object, twice daily. The doses were rapidly increased, practically doubled with each injection; and the maximum dose, instead of being limited to 800 and 1,000 units, was increased to 3,000, 5,000, and, in some cases, to 10,000 units or more.

When the hay-fever season of the patient was due, the maximum dose was reduced to one-half, and the intervals to twice weekly, and this reduced dosage was continued until near the end of the patient's hay-fever season.

In 1923 the Director of the Hygienic Laboratory of the United States Public Health Service at Washington, sent to our department of hay fever and asthma of the Charity Hospital, a glycerol extract of ragweed for testing on our hay-fever patients. Owing to the wide variation in the various pollen extracts on the market, the Hygienic Laboratory had decided to attempt to devise a method of standardizing these pollen extracts in order that all manufacturers could distribute extracts of known and standardized activity.

Since the ragweed extract is the most important of this group of products, the Hygienic Laboratory selected this extract as the first for which a standard should be produced. They succeeded in preparing an extract which reacted in very high dilutions in the skin of sensitive subjects, fixed complements in high dilutions, and had the distinct advantage of retaining its activity for long periods without measurable deterioration. The protein content to a cubic centimeter of the extract was accurately determined, together with its antigenic value, by means of the complement fixation tests.

After a carefully conducted series of tests, we found that the glycerol extract retained in its concentrated form a degree of efficiency far superior to the aqueous extract. In fact, in testing one of these extracts prepared by the Hygienic Laboratory, which we had kept in our refrigerator for two years, it was found to contain at the end of that time almost 100 per cent of its original potency.

Although the glycerol extract retained, in its concentrated form, a high degree of efficiency, this was rapidly lost when weaker solutions were prepared from it. Because of this fact, the dilutions for administration were prepared as they were required, and these were not used more than three days without renewing the supply. The extract furnished by the Hygienic Laboratory was made from mature pollen grains in the proportion of 1 gram to 100 cubic centimeters of extractive fluid, so that each cubic centimeter of the extract contained 10,000 pollen units. In the season of 1925, one-half of all the cases of fall hay fever were treated with the glycerin extract, and we believe that this was an important factor in the success obtained. Every patient

was given the usual diagnostic tests with the various pollen extracts, in order to determine the form and degree of sensitization. These tests were made with the intradermal method, the initial test being made with five per cent dilutions of the extract. We have found the intradermal method the most efficient, but advise the cutaneous method for those who have not had considerable experience with immunological methods.

The intensive treatment of hay fever, which is limited to the pre-seasonal form, has given the most gratifying results in the percentage of seasonal cures. In uncomplicated cases in which the treatment could be carried out without interruption, there were 72 per cent in which the patients were practically free from all symptoms of hay fever, and 23 per cent in which there was marked relief from the attacks, or a total of 95 per cent of favorable results in the cases treated.

The treatment of hay fever is not without its element of hazard, but this seems not to be especially increased by this method of administration. Physicians who have treated a large number of hay-fever patients by injection of pollen extracts realize that they are using a method which is not without its risks, and great care should therefore be exercised. During the past season we have had not more than 5 cases of anaphylactic shock in a series of 536 cases, and all of these were promptly relieved by the administration of adrenalin.

In the administration of pollen extracts, special care should be taken to avoid making an injection into a vein. In the case of large doses, such an injection would be followed by an anaphylactic shock of marked and even alarming intensity. This can easily be avoided by withdrawing the piston of the syringe slightly before the injection is made. If blood enters the syringe, the point of the needle is in a vein, and the site of the injection should be changed accordingly. When injections of larger doses are made, the patient is required to remain in the clinic or the office for 20 minutes as a precautionary measure.

As illustrating the importance of detail in the treatment of such cases, the following case is noted:

J. H. F., 40 years of age, has been a great sufferer from hay fever for eight years. He is a traveling salesman, and his attacks of hay fever, which occurred in the fall, practically incapacitated him for his work during September and October. When he was tested he showed 85 per cent reaction to the common ragweed, which coincided with his season and symptoms, and, as he was in a hurry to leave the city, he was given 15 units as the initial dose of his immunizing treatment. One-half hour later he returned to the office with a marked anaphylaxis, and was relieved with 0.25 cubic centimeter of adrenalin.

The following day the patient was again injected, but instead of increasing the dose to 30 units, as indicated by our new method, the initial dose of 15 units was repeated. One-half hour later he returned to the office with a marked anaphylactic shock. The skin all over his body was intensely red and covered with a miliary eruption. His eyelids were puffed up, his face was swollen, and there was a tendency to asthmatic breathing. A dose of adrenalin was again administered, followed by entire relief in about 30 minutes. The patient was naturally alarmed by these violent reactions, and stated that the remedy was apparently worse than the disease, but expressed his willingness to continue the treatment if it was considered advisable. The following day an injection of 5 units was given, followed by daily injections of 10, 15, 20, 25, 35 units, and gradually increasing doses until a dose of 1,000 units was administered without more than a local reaction. In spite of the unfavorable beginning of his treatment, the patient passed the season without any symptoms of hay fever, and proved to be one of our most appreciative patients.

The combined treatment, which has resulted in such gratifying results in a disease formerly considered not amenable to treatment, has three features which are new, viz, (1) the rapidly increasing doses, (2) the short intervals between the injections, and (3) the use of glycerin instead of the aqueous extract. In order to bring about the good results that have been obtained it may not be necessary to combine all three of these methods in treating hay-fever cases, but it is considered highly advisable to do so.

## PUBLIC HEALTH ENGINEERING ABSTRACTS

**A Method of Encouraging Rural Communities to Undertake Malaria Control.** A. W. Fuchs. *Public Health Bulletin* No. 156, United States Public Health Service, pp. 91-97. (Abstracted by L. D. Fricks.)

The advantages of close cooperation between the county health officer and the county agricultural agent are emphasized, and a concrete example is given in which such cooperation was successfully conducted. By this method 10 rural communities in Shelby County, Tenn., voluntarily conducted malaria control campaigns during the season of 1924. The method is based on community pride. The results accomplished were measured by inspections made at the beginning and the end of the season. Consideration was also given to the character of exhibit prepared by the community for the county fair. Because of the intense interest which had been developed in these agricultural exhibits at the Tri-State Fair, and the inclusion of health work in scoring community activity, the keenest rivalry was shown by the competing communities in the improvement of

health and living conditions. Of the 13 participating communities, 10 selected malaria control as their health work. The judge recommended the control measures applicable at the beginning of the season, and checked their accomplishment just before the county fair was held. The final score of the competing communities was announced and prizes were awarded at the fair.

**The Mosquito Factor in the Malaria of Assam Tea Gardens.** C. Strickland. *The Indian Medical Gazette*, vol. 60, No. 11, November, 1925, pp. 514-524. (Abstracted by L. D. Fricks.)

A report of a malaria mosquito survey of the tea gardens of Assam with recommendations for control. The problem of malaria control in Assam is rendered peculiarly difficult by the fact that at least six species of *Anopheles* are suspected of transmitting malaria, and the uncertainty of keeping coolie labor on a tea plantation.

The mosquitoes suspected of carrying malaria are *umbrosus*, *jeyporiensis*, *aconitus*, *funestus*, *culicifacies*, and *maculatus*. Their breeding habits vary considerably and measures taken for the control of one species may increase another.

The advantage of a preliminary survey before beginning control operations are emphasized, to be followed by specific application of appropriate control measures. The value of quinine prophylaxis is questioned; that of education, both of planters and coolies, is rated very high.

**Oil Supplies for Anti-Mosquito Campaigns.** W. G. Stromquist. *Public Health Bulletin* No. 156, United States Public Health Service, pp. 123-126. (Abstracted by W. G. Stromquist.)

The Department of Health of Memphis in 1920 spent over \$1,800 for oil, buying a mixture of black oil and kerosene at 17½ cents a gallon. To reduce costs, the collection of waste oil from garages and filling stations was begun in 1921, and about 15 per cent of the oil used that year was from this source. By 1924 the use of this oil had increased to 100 per cent. The cost of collection, including labor and truck maintenance, is about 2½ cents per gallon. Bargains in oil, such as transformer oil, discolored kerosene, etc., can often be found.

The demanding of proper storage and prompt disposal of waste oil by the fire marshal, to reduce fire hazards, resulted in increasing the quality and quantity of oil. The oil now collected is, with rare exceptions, of such quality that it spreads well on the water.

**Effects of Pond Control on Malaria Prevalence.** L. L. Williams, jr. *Public Health Bulletin* No. 156, pp. 56-64. (Abstracted by L. D. Fricks.)

Based on observations extending over several years, it is concluded that *A. quadrimaculatus* is responsible for most of the malaria in Virginia; that this species breeds nearly always in ponds; and that this

breeding or production can usually be controlled by fluctuating the water level in the ponds. Weekly observations of 25 ponds, 6 streams, and 2 seepage areas showed that practically all of the *quadrimaculatus* came from the ponds. Likewise relatively few *A. punctipennis* and *A. crucians* were collected inside dwelling houses. Epidemiological evidence also incriminates *A. quadrimaculatus*. Malaria in Virginia is grouped around the ponds. It is claimed that the control of mosquito production in ponds will control malaria in Virginia.

**A Field Study of Mountain Malaria in Brazil.** Nelson C. Davis. *The American Journal of Hygiene*, vol. 6, No. 1, January, 1926, pp. 119-138. (Abstracted by L. D. Fricks.)

In a brief study of malaria and anopheline mosquitoes made in the mountains of the State of Rio de Janeiro, Brazil, January, 1925, 201 persons were examined; 39 showed positive bloods; 79 enlarged spleens; and 104 gave positive histories. *P. vivax* infections greatly predominated. The majority of the malaria found was considered to be relapses, infection having taken place in the lowlands; but it is suggested that epidemic malaria may occur at this elevation transmitted by *A. argyritarsis* and to a less extent by *A. bellator*, known in Brazil as *A.* (or *Myzomia*) *lutzi*.

*A. bellator* was the predominating *Anopheles* encountered. It came in swarms at night to the lighted houses, but was never found resting in them during the day. Four hundred and fourteen specimens of this mosquito were dissected, and among this number, one infected mosquito was found (stomach positive, salivary glands negative).

**Airplane Dusting in the Control of Anopheles.** W. V. King and G. H. Bradley. *Public Health Bulletin* No. 156, 1925, pp. 104-106. (Abstracted by L. D. Fricks.)

Dusting Paris green from airplanes in the control of *Anopheles* breeding was tried during 1923 and 1924 near Mound, La. De Haviland planes with metal dust hoppers, adapted for cotton dusting, were employed. The Paris green was mixed with Tripoli earth and the dust was released from the hopper through the bottom of the fuselage. It was found that the dust could be spread satisfactorily with a wind velocity of less than 10 miles per hour. Heavily wooded areas, rank vegetation, and wind drift were chief among the difficulties encountered. It was concluded that one-half pound of Paris green per acre gave a safe margin for treatment of fairly open *Anopheles* breeding areas. In the most successful test, 99 per cent of larvae were killed.

**The New Water Purification Plant at Toronto, Ohio, Employing Double Coagulation of Ohio River Water.** Daniel H. Rupp. *Fourth*



*Annual Report of Ohio Conference on Water Purification*, November, 1924, pp. 65-67. (Abstracted by R. E. Thompson.)

The history of the water supply of Toronto, Ohio, is outlined and the new plant, consisting of mixing chamber, coagulation basins, gravity rapid sand filters, and chlorinator, is described. Double coagulation is employed at all times, it having been found that best results with least application of chemicals can be obtained thereby. The amount of alum used has averaged 3 g. p. g., in approximate ratio of 2:1 to first and second basin, respectively, and lime employed has averaged 2 g. p. g. With the exception of the first month of operation filtered water before chlorination has met the requirements of the original standard of United States Public Health Service (2 *B. coli* per 100 c. c.), and after disinfection with approximately 0.2 g. p. m. of chlorine, giving residual of 0.1 to 0.15 p. p. m. in tap water, final effluent has easily conformed to revised standard (1 *B. coli* per 100 c. c.).

**The Cincinnati Water Works System.** Clarence Bahlman. *Fourth Annual Report of Ohio Conference on Water Purification*, November, 1924, pp. 68-74. (Abstracted by R. E. Thompson.)

Water supply history is outlined and the existing system is described in detail. The present purification plant consists of settling reservoirs, coagulation basins and 28 4-m. g. d. rapid sand filters operated at the rate of 123 m. g. per acre per day. The power for operation of the plant is derived from hydro-electric units installed on pipe lines conveying water from settling basins to purification plant, the available head being approximately 27 feet. The settling reservoirs remove an average of 70 per cent of bacteria and turbidity present in the raw Ohio River water, and the coagulation basins about 20 per cent. The average *B. coli* content of river water during past 17 years has ranged from 1,700 to 3,400 per 100 c. c. Coagulation is effected with lime and iron sulfate. Quicklime is purchased in lump form and is slaked with filtered water at temperature of 140° F., when the boiler plant is in operation. During the period May-September, inclusive, when cold water is employed, extraction is not as complete, but the loss is immaterial in comparison with the cost of operating the boiler plant. Considerable difficulty has been experienced because of the incrustation of lime solution in the pipe line, which is 900 feet in length. The cost of operation during 1923 was equivalent to \$6.76 per m. g. delivered into service, of which \$2.44 was expended on chemicals. There are now over 800 miles of water mains and the supply is practically 100 per cent metered. Boiler feed water employed consists of mixture of 85 per cent condensate free from oil by treatment with alum and caustic soda followed by sand filtration and 15 per cent permutit-softened water.

**An Investigation of Variations in Bacterial Quality of Cincinnati Water Supply.** Clarence Bahlman. *Fourth Annual Report of Ohio Conference on Water Purification*, November, 1924, pp. 75-84. (Abstracted by R. E. Thompson.)

Considerable data derived from bacteriological study of water supplied to consumers in Cincinnati, with particular reference to chlorine applied and to multiplication of bacteria during distribution, are given. The chlorine dose at present employed varies from 0.18 to 0.27 p. p. m.; the former being applied during winter months and the latter during periods of maximum water temperature. During the former season the residual chlorine content of tap water varies from 0.01 to 0.04 p. p. m., but during summer and autumn the free chlorine in the water delivered is practically nil, and during this period the highest *B. coli* content is recorded. An increase in colon and other bacteria, particularly during summer months, was found to occur even in the suburban distribution system, on which there is no open reservoir. The higher colon content recorded in water from downtown taps than from purification plant effluent was shown to be due to the comparatively high *B. coli* content of the water in the pure water reservoir which is exposed to falling leaves and dust of the air. Since contamination with human wastes is most improbable, little sanitary significance is attached to the increased number of bacteria in the reservoir water. The ultimate tap water conforms to the proposed standard of the United States Public Health Service.

**The Rate of Deoxygenation of Polluted Waters.** Emery J. Theriault, *Public Health Reports*, vol. 41, No. 6, February 5, 1926, pp. 207-217. Reprinted from *Proc. Am. Soc. Civ. Eng.*, vol. 51, November, 1925, pp. 1819-1828. (Abstracted by Emery J. Theriault.)

On the basis of 12 separate series of observations covering a cycle of one full year, the following general conclusions have been reached:

1. The Phelps formula holds with reasonable accuracy when applied to samples recently polluted with organic matter.
2. For periods of incubation of less than 10 days it is possible to refer the results obtained under standardized laboratory conditions to the actual times of flow and temperatures of a stream.
3. Under aerobic conditions the stabilization of organic matter apparently proceeds in two distinct stages.
4. The rate at which a polluted water is deoxygenated depends largely on the condition of the sample with respect to its state of oxidation.
5. It is necessary to exercise considerable caution in interpreting the results of analyses when the nitrification stage has almost been reached.
6. Absolute values for the purification accomplished by a treatment plant can not be obtained without resorting to protracted incubation.
7. A complete solution of the problem probably depends on the development of methods whereby the state of oxidation of a sample may more readily be determined.

**Use of Sodium Aluminate as a Coagulant.** J. P. Brownstead. *Fourth Annual Report of Ohio Conference on Water Purification*, November, 1924, pp. 31-36. (Abstracted by R. E. Thompson.)

J. P. Brownstead reported that, during a four-month period in 1924, when aluminate and alum were employed at Ashland, Ky., the cost of coagulants averaged \$9 per m. g., and the reduction in bacteria was in excess of 90 per cent, compared with cost of \$12 per m. g., and bacterial reduction of 70 per cent with alum and lime during period in 1922 when somewhat similar river conditions prevailed. Results of two-month experimental period during which aluminate was substituted for the lime ordinarily used with alum at Ironton, Ohio, where coagulant is applied in primary and secondary basins in ratio of 2 to 1, respectively, are summarized by E. T. Edwards as follows: (1) A trifle higher efficiency was obtained in the primary basin, the floc settling more rapidly and producing a clearer effluent. This resulted in poorer filter efficiency and more algal trouble in the basins; but altering the ratio of coagulant added in primary and secondary basins to 1:1 improved the filter influent and efficiency. (2) When sodium aluminate below the normal lime application was employed, the final effluent contained too great a concentration of free carbon dioxide and had a tendency to be corrosive. Cost of treatment during the period was higher than the average for the year, but the cost of alum and lime would probably have also exceeded the yearly average. Bottle experiments conducted by E. E. Smith at Lima, Ohio, indicated that it would not be economical to replace any part of necessary application of alum with sodium aluminate. Use of latter with alum did not increase the speed of the reaction or produce larger floc particles. C. P. Hoover, in discussing results of laboratory studies at Columbus, Ohio, stated that addition of commercial sodium aluminate in softening by the lime-soda process has the same beneficial effect as alum. It is also an aid to softening on account of its sodium carbonate and hydroxide content, whereas alum increases the noncarbonate hardness and necessitates employment of additional soda ash. It is estimated that commercial sodium aluminate costs from 74 per cent to 135 per cent more than equivalent mixture of alum, soda ash, and lime solutions.

## THE OSAKA (JAPAN) SANITATION EXHIBITION

With a view to increasing the hygienic knowledge of the people and improving medical and sanitary supplies, a sanitation exhibition will be held in Osaka, Japan, from July 15 to August 30, 1926. The exhibition will be held under the auspices of the Federation of Sanitary Associations of Osaka, and with the support of the home office, the Osaka prefecture, and the Osaka municipality.

The exhibits will include all kinds of articles pertaining to sanitation and are divided into two classes or departments: Department A will consist of exhibits sent from Government and public institutions, and department B will include medical and sanitary supplies in general.

There is no charge to exhibitors excepting the cost of transportation of articles of exhibit. Exhibitors of medical and sanitary supplies are allowed to contract to sell their exhibits, bearing certain charges that may be incurred in this connection.

Official organizations, public institutions, and manufacturers who desire to display articles at this exhibition should send in their application at once, together with a list of exhibits, stating the number, size, value, and weight, in order that suitable space may be reserved. The exhibits should arrive in Osaka by July 10.

Further information may be obtained by addressing the Osaka Sanitation Exhibition, care of the Municipal Office, Osaka, Japan.

## DEATHS DURING WEEK ENDED APRIL 17, 1926

*Summary of information received by telegraph from industrial insurance companies for week ended April 17, 1926, and corresponding week of 1925. (From the Weekly Health Index, April 20, 1926, issued by the Bureau of the Census, Department of Commerce)*

	Week ended April 17, 1926	Corresponding week, 1925
Policies in force.....	59, 038, 025	59, 446, 007
Number of death claims.....	15, 096	13, 096
Death claims per 1,000 policies in force, annual rate.....	13.3	11.5

Deaths from all causes in certain large cities of the United States during the week ended April 17, 1926, infant mortality, annual death rate, and comparison with corresponding week of 1925. (From the Weekly Health Index, April 20, 1926, issued by the Bureau of the Census, Department of Commerce)

City	Week ended Apr. 17, 1926		Annual death rate per 1,000 corresponding week, 1925	Deaths under 1 year		Infant mortality rate, week ended Apr. 17, 1926 <sup>1</sup>
	Total deaths	Death rate <sup>1</sup>		Week ended Apr. 17, 1926	Corresponding week, 1925	
Total (67 cities) .....	8,678	15.8	14.5	1,088	994	<sup>2</sup> 92
Akron.....	75	.....	.....	20	6	213
Albany.....	33	14.6	19.5	0	1	0
Atlanta.....	90	.....	.....	12	7	.....
White.....	45	.....	.....	9	.....	.....
Colored.....	35	( <sup>3</sup> )	.....	3	.....	.....
Baltimore.....	219	14.3	16.1	26	29	76
White.....	157	.....	.....	17	.....	61
Colored.....	62	( <sup>3</sup> )	.....	9	.....	146
Birmingham.....	69	17.5	17.7	9	10	.....
White.....	30	.....	.....	4	.....	.....
Colored.....	39	( <sup>3</sup> )	.....	5	.....	.....
Boston.....	295	19.7	16.5	37	36	104
Bridgeport.....	43	.....	.....	5	3	85
Buffalo.....	194	18.8	15.8	26	24	108
Cambridge.....	43	18.7	17.0	7	8	116
Camden.....	37	15.0	19.5	4	9	68
Chicago.....	793	13.8	13.0	86	110	76
Cincinnati.....	154	19.6	17.2	13	6	81
Cleveland.....	286	15.9	11.0	41	29	114
Columbus.....	83	15.5	11.9	7	4	64
Dallas.....	48	12.9	14.6	3	5	.....
White.....	32	.....	.....	2	.....	.....
Colored.....	16	( <sup>3</sup> )	.....	0	.....	.....
Dayton.....	53	16.0	11.8	6	8	94
Denver.....	79	14.7	16.7	11	10	.....
Des Moines.....	36	12.6	8.7	1	1	47
Detroit.....	416	17.4	11.4	99	48	159
Duluth.....	36	17.0	12.3	4	7	94
El Paso.....	32	15.9	19.9	7	4	.....
Erie.....	39	.....	.....	7	3	133
Fall River.....	51	20.6	17.4	10	6	145
Flint.....	21	8.4	11.6	8	7	132
Fort Worth.....	20	6.8	13.0	2	3	.....
White.....	17	.....	.....	2	.....	.....
Colored.....	3	( <sup>3</sup> )	.....	0	.....	.....
Grand Rapids.....	45	13.3	11.5	9	7	130
Houston.....	53	16.8	13.6	6	9	.....
White.....	33	.....	.....	4	.....	.....
Colored.....	20	( <sup>3</sup> )	.....	2	.....	.....
Indianapolis.....	119	17.3	14.1	10	1	73
White.....	100	.....	.....	9	.....	76
Colored.....	19	.....	.....	1	.....	55
Jacksonville, Fla.....	45	22.4	14.9	6	1	125
White.....	18	.....	.....	3	.....	98
Colored.....	27	.....	.....	3	.....	172
Jersey City.....	87	14.4	12.1	9	11	64
Kansas City, Kans.....	46	20.7	16.6	6	5	104
White.....	36	.....	.....	2	.....	43
Colored.....	10	( <sup>3</sup> )	.....	4	.....	525
Kansas City, Mo.....	105	14.9	11.5	13	14	.....
Los Angeles.....	244	.....	.....	28	26	78
Louisville.....	101	17.4	14.8	9	10	78
White.....	77	.....	.....	5	.....	50
Colored.....	24	( <sup>3</sup> )	.....	4	.....	251
Lowell.....	44	20.8	16.5	8	5	149
Lynn.....	23	11.6	12.1	3	3	75
Memphis.....	71	21.2	20.3	4	10	.....
White.....	46	.....	.....	2	.....	.....
Colored.....	25	( <sup>3</sup> )	.....	2	.....	.....
Milwaukee.....	156	16.2	17.3	28	19	130
Minneapolis.....	128	15.7	14.8	16	22	89

<sup>1</sup> Annual rate per 1,000 population.

<sup>2</sup> Deaths under 1 year per 1,000 births. Cities left blank are not in the registration area for births.

<sup>3</sup> Data for 62 cities.

<sup>4</sup> Deaths for week ended Friday April 16, 1926.

<sup>5</sup> In the cities for which deaths are shown by color, the colored population in 1920 constituted the following percentages of the total population: Atlanta 31, Baltimore 15, Birmingham 39, Dallas 15, Fort Worth 14, Houston 25, Kansas City, Kans. 14, Louisville 17, Memphis 38, Nashville 30, New Orleans 26, Norfolk 38, Richmond 32, and Washington, D. C., 25.

Deaths from all causes in certain large cities of the United States during the week ended April 17, 1926, infant mortality, annual death rate, and comparison with corresponding week of 1925. (From the Weekly Health Index, April 20, 1926, issued by the Bureau of the Census, Department of Commerce)—Continued

City	Week ended Apr. 17, 1926		Annual death rate per 1,000 corresponding week, 1925	Deaths under 1 year		Infant mortality rate, week ended Apr. 17, 1926
	Total deaths	Death rate		Week ended Apr. 17, 1926	Corresponding week, 1925	
Nashville <sup>1</sup> .....	54	20.7	13.0	4	3	-----
White.....	35			3		
Colored.....	19	( <sup>b</sup> )		1		
New Bedford.....	51	22.2	14.8	11	3	191
New Haven.....	52	15.2	12.2	5	6	68
New Orleans.....	132	16.6	20.4	12	16	-----
White.....	84			6		
Colored.....	48	( <sup>b</sup> )		6		
New York.....	1,830	16.2	14.5	251	206	102
Bronx Borough.....	214	12.8	10.5	21	19	70
Brooklyn Borough.....	651	15.4	12.1	94	70	95
Manhattan Borough.....	737	19.8	20.3	101	94	112
Queens Borough.....	173	12.6	9.9	30	15	136
Richmond Borough.....	55	20.7	18.1	5	8	88
Newark, N. J.....	138	15.9	15.2	19	17	91
Norfolk.....	32			4		71
White.....	12			1		30
Colored.....	20	( <sup>b</sup> )		3		149
Oakland.....	55	11.3	12.9	3	10	35
Oklahoma City.....	20			3	1	-----
Omaha.....	53	13.1	16.3	7	8	73
Paterson.....	47	17.3	17.3	7	7	132
Philadelphia.....	569	15.0	14.6	62	55	82
Pittsburgh.....	242	20.0	16.8	27	25	90
Portland, Oreg.....	66	12.2	15.0	4	9	41
Providence.....	73	14.2	15.6	6	10	50
Richmond.....	47	13.1	18.2	8	4	161
White.....	22			2		39
Colored.....	25	( <sup>b</sup> )		6		219
Rochester.....	93	15.3	14.0	9	11	72
St. Louis.....	252	16.0	14.1	26	20	-----
St. Paul.....	60	12.7	16.1	2	7	13
Salt Lake City <sup>1</sup> .....	37	14.7	13.5	6	1	83
San Antonio.....	70	18.4	16.6	20	14	-----
San Diego.....	35	17.2	11.8	4		84
San Francisco.....	146	13.7	16.0	9	15	54
Schenectady.....	18	10.1	11.8	1	0	29
Seattle.....	72			3	6	28
Somerville.....	38	20.0	9.5	3	3	78
Spokane.....	30	14.4	12.9	2	3	47
Springfield, Mass.....	37	13.6	18.7	3	4	43
Syracuse.....	42	12.0	13.5	1	6	13
Tacoma.....	27	13.5	12.5	2	4	47
Toledo.....	85	16.0	14.5	5	8	78
Trenton.....	32	12.6	13.0	5	4	67
Washington, D. C.....	129	13.5	16.7	23	7	40
White.....	86				5	41
Colored.....	43	( <sup>b</sup> )			2	36
Waterbury.....	57			1	4	96
Wilmington, Del.....	35	15.0	12.8	2	6	111
Yonkers.....	26	11.9	9.6	3	4	90
Youngstown.....	53	17.3	12.1	6	9	144

<sup>1</sup> Deaths for week ended Friday, April 16, 1926.

<sup>2</sup> In the cities for which deaths are shown by color, the colored population for 1920 constituted the following percentages of the total population: Atlanta 31, Baltimore 15, Birmingham 39, Dallas 16, Fort Worth 14, Houston 25, Kansas City, Kans. 14, Louisville 17, Memphis 38, Nashville 30, New Orleans 28, Norfolk 33, Richmond 32, and Washington, D. C. 23.

# PREVALENCE OF DISEASE

*No health department, State or local, can effectively prevent or control disease without knowledge of when, where, and under what conditions cases are occurring*

## UNITED STATES

### CURRENT WEEKLY STATE REPORTS

These reports are preliminary and the figures are subject to change when later returns are received by the State health officers

#### Reports for Week Ended April 24, 1926

ALABAMA		CALIFORNIA	
	Cases		Cases
Chicken pox.....	46	Cerebrospinal meningitis—Alameda County..	1
Diphtheria.....	7	Chicken pox.....	274
Influenza.....	141	Diphtheria.....	95
Malaria.....	8	Influenza.....	17
Measles.....	262	Measles.....	295
Mumps.....	63	Mumps.....	297
Pellagra.....	13	Poliomyelitis—Los Angeles.....	1
Pneumonia.....	94	Scarlet fever.....	105
Poliomyelitis.....	1	Smallpox:	
Scarlet fever.....	19	Los Angeles.....	26
Smallpox.....	51	Oakland.....	19
Tuberculosis.....	178	San Francisco.....	10
Typhoid fever.....	14	Scattering.....	45
Whooping cough.....	17	Typhoid fever.....	12
		Whooping cough.....	70
ARIZONA		COLORADO	
	Cases		Cases
Chicken pox.....	5	Chicken pox.....	73
Influenza.....	8	Diphtheria.....	28
Measles.....	3	German measles.....	5
Pneumonia.....	5	Influenza.....	2
Scarlet fever.....	8	Measles.....	50
Trachoma.....	12	Mumps.....	4
Tuberculosis.....	18	Pneumonia.....	4
Typhoid fever.....	1	Scarlet fever.....	49
		Smallpox.....	3
ARKANSAS		Tuberculosis.....	54
	Cases	Typhoid fever.....	1
Chicken pox.....	34	Whooping cough.....	77
Diphtheria.....	1		
Influenza.....	117	CONNECTICUT	
Malaria.....	34		Cases
Measles.....	49	Chicken pox.....	36
Mumps.....	30	Diphtheria.....	13
Pellagra.....	6	Mumps.....	11
Scarlet fever.....	12	Paratyphoid fever.....	2
Smallpox.....	8	Pneumonia (broncho).....	50
Trachoma.....	1	Pneumonia (lobar).....	60
Tuberculosis.....	5	Poliomyelitis.....	1
Typhoid fever.....	2	Scarlet fever.....	81
Whooping cough.....	42		

## Reports for Week Ended April 24, 1926—Continued

CONNECTICUT—continued		ILLINOIS—continued	
	Cases		Cases
Septic sore throat .....	1	Lethargic encephalitis—McLean County.....	1
Tetanus .....	1	Measles .....	1,075
Tuberculosis (all forms) .....	41	Pneumonia .....	357
Typhoid fever .....	1	Polio-myelitis—Lake County.....	1
Whooping cough .....	50	Scarlet fever .....	352
DELAWARE		Smallpox .....	28
Measles .....	38	Tuberculosis .....	300
Pneumonia .....	5	Typhoid fever .....	7
Scarlet fever .....	7	Whooping cough .....	210
Tuberculosis .....	3	INDIANA	
Whooping cough .....	4	Chicken pox .....	51
FLORIDA		Diphtheria .....	24
Chicken pox .....	59	Influenza .....	65
Diphtheria .....	21	Measles .....	1,260
Influenza .....	1	Mumps .....	1
Malaria .....	4	Pneumonia .....	13
Measles .....	61	Scarlet fever .....	188
Mumps .....	20	Smallpox .....	169
Pneumonia .....	5	Tuberculosis .....	53
Scarlet fever .....	8	Typhoid fever .....	6
Smallpox .....	91	Whooping cough .....	138
Tuberculosis .....	12	IOWA	
Typhoid fever .....	9	Chicken pox .....	12
Whooping cough .....	25	Diphtheria .....	75
GEORGIA		German measles .....	26
Cerebrospinal meningitis .....	1	Measles .....	390
Chicken pox .....	35	Mumps .....	27
Dengue .....	1	Paratyphoid fever .....	1
Diphtheria .....	11	Pneumonia .....	4
Dysentery .....	5	Scarlet fever .....	32
Hookworm disease .....	4	Smallpox .....	43
Influenza .....	131	Tuberculosis .....	25
Malaria .....	14	Whooping cough .....	13
Measles .....	162	KANSAS	
Mumps .....	47	Cerebrospinal meningitis .....	1
Pellagra .....	9	Chicken pox .....	32
Pneumonia .....	48	Diphtheria .....	13
Scarlet fever .....	1	German measles .....	43
Septic sore throat .....	6	Influenza .....	20
Smallpox .....	20	Measles .....	413
Tuberculosis .....	18	Mumps .....	58
Tularemia .....	1	Pneumonia .....	30
Typhoid fever .....	6	Scarlet fever .....	52
Whooping cough .....	31	Smallpox .....	10
IDAHO		Tetanus .....	1
Cerebrospinal meningitis—Saint Marys.....	1	Tuberculosis .....	39
Chicken pox .....	10	Typhoid fever .....	1
Diphtheria .....	4	Whooping cough .....	189
Influenza .....	1	LOUISIANA	
Measles .....	72	Cerebrospinal meningitis .....	1
Mumps .....	71	Diphtheria .....	7
Pneumonia .....	2	Influenza .....	26
Scarlet fever .....	20	Measles .....	8
Smallpox .....	13	Pneumonia .....	54
Typhoid fever .....	2	Scarlet fever .....	25
Whooping cough .....	18	Smallpox .....	22
ILLINOIS—		Tuberculosis .....	26
Diphtheria .....	88	Typhoid fever .....	18
Influenza .....	57	Whooping cough .....	18



## Reports for Week Ended April 24, 1926—Continued

MAINE		MINNESOTA	
	Cases		Cases
Chicken pox.....	15	Cerebrospinal meningitis.....	2
Diphtheria.....	1	Chicken pox.....	99
German measles.....	60	Diphtheria.....	37
Influenza.....	257	Influenza.....	4
Lethargic encephalitis.....	1	Measles.....	602
Measles.....	274	Pneumonia.....	7
Mumps.....	67	Scarlet fever.....	320
Pneumonia.....	38	Smallpox.....	2
Scarlet fever.....	12	Tuberculosis.....	58
Tuberculosis.....	10	Typhoid fever.....	6
Typhoid fever.....	1	Whooping cough.....	24
Vincent's angina.....	8		
Whooping cough.....	31	MISSISSIPPI	
MARYLAND <sup>1</sup>		Cerebrospinal meningitis.....	1
Chicken pox.....	80	Diphtheria.....	7
Diphtheria.....	23	Scarlet fever.....	5
Dysentery.....	1	Smallpox.....	14
German measles.....	2	Typhoid fever.....	3
Influenza.....	42		
Lethargic encephalitis.....	1	MISSOURI	
Measles.....	567	(Exclusive of St. Louis)	
Mumps.....	241	Cerebrospinal meningitis.....	3
Ophthalmia neonatorum.....	1	Chicken pox.....	22
Paratyphoid fever.....	1	Diphtheria.....	10
Pneumonia (broncho).....	75	Influenza.....	18
Pneumonia (lobar).....	61	Malaria.....	13
Scarlet fever.....	45	Measles.....	518
Septic sore throat.....	6	Mumps.....	14
Tetanus.....	2	Pneumonia.....	14
Tuberculosis.....	94	Rabies (in animals).....	4
Typhoid fever.....	18	Scarlet fever.....	107
Whooping cough.....	77	Smallpox.....	4
MASSACHUSETTS		Tetanus.....	1
Cerebrospinal meningitis.....	2	Tuberculosis.....	68
Chicken pox.....	84	Whooping cough.....	45
Conjunctivitis (suppurative).....	4		
Diphtheria.....	50	MONTANA	
German measles.....	292	Chicken pox.....	18
Influenza.....	96	German measles.....	42
Lethargic encephalitis.....	2	Measles.....	55
Malaria.....	1	Mumps.....	33
Measles.....	832	Rocky Mountain spotted fever—Quartz.....	1
Mumps.....	104	Scarlet fever.....	40
Ophthalmia neonatorum.....	36	Smallpox.....	2
Pneumonia (lobar).....	181	Tuberculosis.....	1
Polioomyelitis.....	2	Whooping cough.....	13
Scarlet fever.....	259		
Septic sore throat.....	5	NEBRASKA	
Trachoma.....	3	Chicken pox.....	17
Trichinosis.....	2	Diphtheria.....	8
Tuberculosis (pulmonary).....	120	Influenza.....	41
Tuberculosis (other forms).....	26	Measles.....	89
Typhoid fever.....	7	Mumps.....	7
Whooping cough.....	327	Pneumonia.....	2
MICHIGAN		Scarlet fever.....	80
Diphtheria.....	69	Smallpox.....	16
Measles.....	1,630	Whooping cough.....	9
Pneumonia.....	250		
Scarlet fever.....	332	NEW JERSEY	
Smallpox.....	12	Cerebrospinal meningitis.....	4
Tuberculosis.....	52	Chicken pox.....	177
Typhoid fever.....	3	Diphtheria.....	59
Whooping cough.....	208	Influenza.....	77
		Malaria.....	1

<sup>1</sup> Week ended Friday.

## Reports for Week Ended April 24, 1926—Continued

NEW JERSEY—continued		OREGON	
	Cases		Cases
Measles.....	2,427	Chicken pox.....	45
Pneumonia.....	321	Diphtheria.....	20
Scarlet fever.....	214	Influenza.....	43
Trachoma.....	1	Lethargic encephalitis.....	1
Typhoid fever.....	4	Measles.....	51
Whooping cough.....	87	Mumps.....	41
		Pneumonia.....	17
NEW MEXICO		Rocky Mountain spotted fever.....	1
Chicken pox.....	11	Scarlet fever.....	61
Diphtheria.....	9	Septic sore throat.....	1
Influenza.....	4	Smallpox.....	21
Lethargic encephalitis.....	1	Tuberculosis.....	6
Measles.....	21	Typhoid fever.....	6
Mumps.....	16	Whooping cough.....	44
Pellagra.....	1		
Pneumonia.....	8	PENNSYLVANIA	
Scarlet fever.....	5	Cerebrospinal meningitis:	
Tuberculosis.....	19	Carriek.....	1
Whooping cough.....	54	Valley township <sup>2</sup> .....	1
		Chicken pox.....	227
NEW YORK		Diphtheria.....	99
(Exclusive of New York City)		German measles.....	53
Cerebrospinal meningitis.....	1	Measles.....	3,432
Chicken pox.....	169	Mumps.....	95
Diphtheria.....	87	Pneumonia.....	133
German measles.....	429	Scarlet fever.....	501
Influenza.....	400	Smallpox.....	1
Lethargic encephalitis.....	2	Tuberculosis.....	111
Malaria.....	2	Typhoid fever.....	17
Measles.....	1,546	Whooping cough.....	353
Mumps.....	147		
Ophthalmia neonatorum.....	1	RHODE ISLAND	
Pneumonia.....	313	Chicken pox.....	3
Polio-myelitis.....	1	Diphtheria.....	2
Scarlet fever.....	220	German measles.....	10
Septic sore throat.....	2	Influenza.....	4
Trachoma.....	1	Measles.....	158
Typhoid fever.....	9	Mumps.....	3
Vincent's angina.....	8	Scarlet fever.....	4
Whooping cough.....	369	Typhoid fever.....	1
		Whooping cough.....	6
OKLAHOMA			
(Exclusive of Oklahoma City and Tulsa)		SOUTH DAKOTA	
Cerebrospinal meningitis:		Chicken pox.....	5
Grady County.....	1	Diphtheria.....	7
Okmulgee County.....	1	Measles.....	30
Chicken pox.....	64	Mumps.....	34
Diphtheria.....	19	Pneumonia.....	2
Influenza.....	275	Scarlet fever.....	63
Malaria.....	19	Smallpox.....	2
Measles.....	59	Tuberculosis.....	2
Pellagra.....	5	Whooping cough.....	3
Pneumonia.....	71		
Scarlet fever.....	31	TENNESSEE	
Smallpox:		Cerebrospinal meningitis:	
Carter County.....	19	Lawrence County.....	1
Comanche County.....	26	Nashville.....	3
Scattering.....	7	Chicken pox.....	16
Typhoid fever.....	4	Diphtheria.....	5
Whooping cough.....	11	Influenza.....	168

<sup>1</sup> Deaths.<sup>2</sup> County not specified.

## Reports for Week Ended April 24, 1926—Continued

TENNESSEE—continued		WASHINGTON—continued	
	Cases		Cases
Lethargic encephalitis—Maury County.....	1	Smallpox.....	45
Malaria.....	6	Tuberculosis.....	36
Measles.....	468	Typhoid fever.....	3
Mumps.....	15	Whooping cough.....	76
Pellagra.....	8		
Pneumonia.....	70	WEST VIRGINIA	
Polio-myelitis—Bedford County.....	1	Cerebrospinal meningitis—	
Rabies.....	1	Monongalia County.....	1
Scarlet fever.....	13	Wirt County.....	10
Smallpox.....	29	Chicken pox.....	43
Tuberculosis.....	22	Diphtheria.....	9
Typhoid fever.....	4	Influenza.....	313
Whooping cough.....	47	Measles.....	816
		Scarlet fever.....	51
TEXAS		Smallpox.....	19
Chicken pox.....	90	Tuberculosis.....	14
Dengue.....	4	Typhoid fever.....	3
Diphtheria.....	16	Whooping cough.....	26
Influenza.....	67		
Measles.....	13	WISCONSIN	
Mumps.....	23	Milwaukee:	
Pellagra.....	4	Chicken pox.....	67
Pneumonia.....	21	Diphtheria.....	9
Scarlet fever.....	18	German measles.....	2
Smallpox.....	79	Influenza.....	13
Tuberculosis.....	25	Measles.....	177
Typhoid fever.....	3	Mumps.....	42
Whooping cough.....	43	Pneumonia.....	66
		Polio-myelitis.....	1
UTAH		Scarlet fever.....	17
Chicken pox.....	35	Tuberculosis.....	25
Diphtheria.....	6	Whooping cough.....	30
Influenza.....	2	Scattering:	
Measles.....	51	Cerebrospinal meningitis.....	2
Mumps.....	32	Chicken pox.....	72
Scarlet fever.....	8	Diphtheria.....	13
Smallpox.....	2	German measles.....	104
Tuberculosis.....	2	Influenza.....	352
Whooping cough.....	173	Measles.....	496
		Mumps.....	89
VERMONT		Ophthalmia neonatorum.....	1
Chicken pox.....	14	Pneumonia.....	39
Diphtheria.....	3	Scarlet fever.....	132
Measles.....	17	Smallpox.....	2
Mumps.....	8	Tuberculosis.....	28
Scarlet fever.....	8	Typhoid fever.....	1
Whooping cough.....	26	Whooping cough.....	112
VIRGINIA		WYOMING	
Smallpox.....	1	Chicken pox.....	6
		Diphtheria.....	2
WASHINGTON		German measles.....	6
Cerebrospinal meningitis—Spokane.....	2	Measles.....	4
Chicken pox.....	57	Mumps.....	2
Diphtheria.....	13	Rocky Mountain spotted fever:	
German measles.....	112	Johnson County.....	1
Measles.....	63	Natrona County.....	1
Mumps.....	38	Scarlet fever.....	39
Scarlet fever.....	71	Smallpox.....	2
		Whooping cough.....	16

## Report for Week Ended April 17, 1926

NORTH DAKOTA		NORTH DAKOTA—continued	
	Cases		Cases
Cerebrospinal meningitis.....	1	Pneumonia.....	18
Chicken pox.....	10	Scarlet fever.....	76
Diphtheria.....	13	Smallpox.....	4
German measles.....	161	Trachoma.....	1
Influenza.....	20	Tuberculosis.....	2
Lethargic encephalitis.....	1	Typhoid fever.....	3
Measles.....	27	Whooping cough.....	3
Mumps.....	11		

## SUMMARY OF MONTHLY REPORTS FROM STATES

The following summary of monthly State reports is published weekly and covers only those States from which reports are received during the current week:

State	Cerebro-spinal meningitis	Diphtheria	Influenza	Malaria	Measles	Pelagra	Polio-myelitis	Scarlet fever	Small-pox	Typhoid fever
<i>February, 1926</i>										
Arkansas.....	1	28	1,131	89	27	19	1	40	22	10
Idaho.....	7	28	45	0	-----	0	0	96	-----	3
<i>March, 1926</i>										
Colorado.....	0	139	88	-----	191	-----	1	193	5	62
New Jersey.....	9	312	892	2	10,499	-----	6	894	5	26
North Dakota.....	-----	41	336	-----	117	-----	0	403	17	0
Ohio.....	4	364	2,580	1	14,861	0	1	1,984	309	33

Number of Cases of Certain Communicable Diseases Reported for the Month of February, 1926, by State Health Officers

State	Chick-en pox	Diphtheria	Meas-sles	Mumps	Scar-let fever	Small pox	Tuber-culo-sis	Ty-phoid fever	Whoop-ing cough
Alabama.....	281	83	186	205	82	148	314	51	122
Arizona.....	84	20	3	52	45	3	57	2	9
Arkansas.....	97	28	27	33	40	22	149	10	131
California.....	1,783	473	364	1,231	673	658	1,705	41	226
Colorado.....	236	84	47	17	109	4	126	6	290
Connecticut.....	446	183	2,391	50	391	0	111	11	281
Delaware.....	41	11	682	-----	9	1	22	2	11
District of Columbia.....	150	95	231	-----	103	0	89	3	69
Florida.....	130	55	29	98	49	558	37	31	69
Georgia.....	128	53	393	194	27	70	112	12	80
Idaho.....	-----	28	-----	-----	96	-----	-----	3	-----
Illinois.....	1,497	392	3,337	462	2,129	163	1,132	49	804
Indiana.....	396	144	4,953	3	1,056	419	149	14	410
Iowa.....	-----	-----	-----	-----	-----	-----	-----	-----	-----
Kansas.....	407	72	691	86	336	55	145	4	357
Kentucky.....	-----	-----	-----	-----	-----	-----	-----	-----	-----
Louisiana.....	75	67	5	8	64	250	157	50	24
Maine.....	114	7	248	87	124	0	33	9	141
Maryland.....	416	103	5,951	699	212	4	321	11	195
Massachusetts.....	826	273	6,441	347	1,119	0	583	23	1,653
Michigan.....	844	381	7,807	127	1,503	32	434	20	1,312
Minnesota.....	665	219	511	-----	1,733	54	260	26	179
Mississippi.....	1,047	153	1,802	1,519	53	82	331	65	1,267
Missouri.....	432	357	947	252	1,052	34	187	13	207
Montana.....	93	16	37	210	152	36	14	4	49
Nebraska.....	-----	42	-----	-----	179	-----	-----	1	-----
Nevada.....	-----	-----	-----	-----	-----	-----	-----	-----	-----
New Hampshire.....	-----	-----	-----	-----	-----	-----	-----	-----	-----
New Jersey.....	1,334	341	8,578	-----	813	0	392	17	296
New Mexico.....	91	28	13	55	41	17	143	7	95
New York.....	2,379	840	14,224	870	1,799	3	1,468	80	1,963
North Carolina.....	909	114	859	-----	149	115	-----	9	687
North Dakota.....	83	10	88	186	470	34	16	5	63
Ohio.....	1,172	389	15,090	197	1,639	308	456	42	1,448
Oklahoma.....	143	60	53	76	161	80	48	16	159
Oregon.....	171	89	210	239	108	185	69	14	203
Pennsylvania.....	-----	-----	-----	-----	-----	-----	-----	-----	-----
Rhode Island.....	55	27	2,138	20	51	0	27	3	68
South Carolina.....	30	183	36	9	32	83	193	62	470
South Dakota.....	104	31	89	295	396	15	1	7	30
Tennessee.....	306	63	1,565	116	160	94	193	29	67
Texas.....	-----	-----	-----	-----	-----	-----	-----	-----	-----
Utah.....	-----	-----	-----	-----	-----	-----	-----	-----	-----
Vermont.....	165	7	56	54	83	0	14	3	146
Virginia.....	827	137	1,220	-----	293	34	120	27	737
Washington.....	425	95	77	555	402	397	127	15	419
West Virginia.....	187	74	963	-----	152	25	62	47	198
Wisconsin.....	951	236	1,280	617	712	44	183	16	720
Wyoming.....	25	2	18	40	67	1	3	1	47

<sup>1</sup> Pulmonary.

<sup>2</sup> Report not received at time of going to press.

<sup>3</sup> Reports received weekly.

<sup>4</sup> Reports received annually.

<sup>5</sup> Exclusive of Oklahoma City and Tulsa.

## Case Rates per 1,000 Population (Annual Basis) for the Month of February, 1926

State	Chick- en pox	Diph- theria	Meas- les	Mumps	Scar- let fever	Small- pox	Tuber- culosis	Ty- phoid fever	Whoop- ing cough
Alabama	1.47	0.43	0.97	1.07	0.43	0.78	1.64	0.27	0.64
Arizona	2.60	.62	.09	1.61	1.39	.09	1.76	.06	.28
Arkansas	.68	.20	.19	.65	.28	.15	1.34	.07	.91
California	5.63	1.49	1.15	3.89	2.12	2.08	1.23	.13	.71
Colorado	2.98	1.06	.59	.21	1.37	.05	1.59	.08	3.66
Connecticut	3.73	1.53	21.67	.42	2.77	.00	.93	.09	2.35
Delaware	2.26	.61	37.54		.50	.06	1.27	.11	.61
District of Columbia	3.84	2.43	6.43		2.64	.00	2.28	.08	1.77
Florida	1.52	.64	.34	1.15	.57	6.54	.43	.36	.46
Georgia	.54	.22	1.66	.82	.11	.30	.47	.05	.34
Idaho		.73			2.49			.08	
Illinois	2.77	.72	6.17	.85	3.93	.30	2.69	.60	1.49
Indiana	1.67	.61	20.94	.01	4.46	1.77	.63	.06	1.73
Iowa <sup>1</sup>									
Kansas	2.91	.52	4.94	.62	2.40	.39	1.04	.03	2.55
Kentucky <sup>2</sup>									
Louisiana	.52	.46	.08	.06	.44	1.72	1.08	.34	.17
Maine	1.89	.12	4.12	1.44	2.06	.00	.55	.15	2.34
Maryland	3.49	.88	49.95	5.87	1.78	.03	2.69	.00	1.64
Massachusetts	2.53	.85	20.10	1.08	3.49	.00	1.82	.07	5.16
Michigan	2.59	1.17	23.98	.39	4.62	.10	1.33	.06	4.03
Minnesota	3.34	1.10	2.57		8.70	.27	1.31	.13	.90
Mississippi	7.62	1.11	13.12	11.06	.39	.60	2.41	.47	9.22
Missouri	1.62	1.34	3.55	.94	3.94	.13	.70	.05	.78
Montana	1.82	.31	.73	4.12	2.98	.71	.27	.08	.96
Nebraska		.40			1.71			.01	
Nevada <sup>4</sup>									
New Hampshire <sup>1</sup>									
New Jersey	4.57	1.24	31.32		2.97	.00	1.43	.06	1.68
New Mexico	3.10	.95	.44	1.87	1.40	.58	4.87	.24	3.24
New York	2.76	.97	16.50	1.01	2.05	.00	1.70	.09	2.28
North Carolina	4.24	.53	4.01		.69	.54		.04	3.20
North Dakota	1.56	.19	1.65	3.50	8.83	.64	.30	.09	1.13
Ohio	2.38	.79	30.62	.40	3.33	.62	.93	.09	2.94
Oklahoma <sup>5</sup>	.82	.34	.30	.44	.92	.46	.27	.09	.91
Oregon	2.60	1.35	3.19	3.63	2.55	2.81	1.05	.21	3.09
Pennsylvania <sup>2</sup>									
Rhode Island	1.11	.55	43.16	.40	1.03	.00	.55	.06	1.37
South Carolina	.22	1.33	.26	.07	.23	.60	1.40	.45	3.41
South Dakota	2.02	.60	1.67	5.72	7.68	.29	.02	.14	.53
Tennessee	1.63	.34	8.36	.62	.85	.50	1.03	.15	.36
Texas <sup>3</sup>									
Utah <sup>1</sup>									
Vermont	6.10	.26	2.07	2.00	3.07	.00	.52	.11	5.40
Virginia	4.36	.72	6.43		1.54	.18	1.63	.14	3.88
Washington	3.69	.83	.67	4.82	3.49	3.45	1.10	.13	3.64
West Virginia	1.50	.59	7.88		1.22	.20	.50	.38	1.59
Wisconsin	4.38	1.09	5.89	2.84	3.28	.20	.84	.07	3.31
Wyoming	1.44	.11	1.03	2.30	3.85	.06	.17	.06	2.70

<sup>1</sup> Pulmonary.<sup>2</sup> Report not received at time of going to press.<sup>3</sup> Reports received weekly.<sup>4</sup> Reports received annually.<sup>5</sup> Exclusive of Oklahoma City and Tulsa.

## RECIPROCAL NOTIFICATIONS

Notifications regarding communicable diseases sent during the month of March, 1926, to other State health departments by departments of health of certain States

Referred by—	Chick- en pox	Meas- les	Scarlet fever	Small- pox	Cerebro- spinal men- ingitis	Tuber- culosis	Ty- phoid fever
Illinois			2	7		4	
Massachusetts							1
Minnesota	1					41	1
New York		2	3	2			3
Ohio					1		
Washington							1

# PLAGUE ERADICATIVE MEASURES IN LOS ANGELES, CALIF.

The following items were taken from the report of plague eradica-  
tive measures from Los Angeles, Calif.:

Week ended Apr. 10, 1926:

Number of rats trapped .....	1, 072
Number of rats found to be plague infected.....	0
Number of squirrels examined.....	458
Number of squirrels found to be plague infected.....	0
Number of mice trapped.....	1, 039
Number of mice found to be plague infected.....	0

Date of discovery of last plague-infected rodent, Nov. 6, 1925.

Date of last human case, Jan. 15, 1925.

## GENERAL CURRENT SUMMARY AND WEEKLY REPORTS FROM CITIES

*Diphtheria*.—For the week ended April 10, 1926, 35 States reported 984 cases of diphtheria. For the week ended April 11, 1925, the same States reported 1,233 cases of this disease. One hundred and two cities, situated in all parts of the country and having an aggregate population of more than 30,400,000, reported 680 cases of diphtheria for the week ended April 10, 1926. Last year for the corresponding week they reported 875 cases. The estimated expectancy for these cities was 936 cases. The estimated expectancy is based on the experience of the last nine years, excluding epidemics.

*Measles*.—Thirty-two States reported 16,797 cases of measles for the week ended April 10, 1926, and 4,297 cases of this disease for the week ended April 11, 1925. One hundred and two cities reported 10,404 cases of measles for the week this year, and 2,932 cases last year.

*Poliomyelitis*.—The health officers of 36 States reported 10 cases of poliomyelitis for the week ended April 10, 1926. The same States reported 17 cases for the week ended April 11, 1925.

*Scarlet fever*.—Scarlet fever was reported for the week as follows: Thirty-five States—this year, 3,401 cases; last year, 3,615 cases; 102 cities—this year, 1,599 cases; last year, 2,024 cases; estimated expectancy, 1,119 cases.

*Smallpox*.—For the week ended April 10, 1926, 35 States reported 735 cases of smallpox. Last year for the corresponding week they reported 705 cases. One hundred and two cities reported smallpox for the week as follows: 1926, 190 cases; 1925, 282 cases; estimated expectancy, 138 cases. Twenty-six deaths from smallpox were reported by these cities for the week this year—25 at Los Angeles, Calif., and 1 at San Francisco, Calif.

*Typhoid fever*.—One hundred and forty-six cases of typhoid fever were reported for the week ended April 10, 1926, by 34 States. For the corresponding week of 1925, the same States reported 186 cases

of this disease. One hundred and two cities reported 41 cases of typhoid fever for the week this year and 52 cases for the corresponding week last year. The estimated expectancy for these cities was 51 cases.

*Influenza and pneumonia.*—Deaths from influenza and pneumonia were reported for the week by 96 cities, with a population of more than 29,700,000, as follows: 1926, 2,003 deaths; 1925, 1,230.

*City reports for week ended April 10, 1926*

The "estimated expectancy" given for diphtheria, poliomyelitis, scarlet fever, smallpox, and typhoid fever is the result of an attempt to ascertain from previous occurrence how many cases of the disease under consideration may be expected to occur during a certain week in the absence of epidemics. It is based on reports to the Public Health Service during the past nine years. It is in most instances the median number of cases reported in the corresponding week of the preceding years. When the reports include several epidemics or when for other reasons the median is unsatisfactory, the epidemic periods are excluded and the estimated expectancy is the mean number of cases reported for the week during nonepidemic years.

If reports have not been received for the full nine years, data are used for as many years as possible, but no year earlier than 1917 is included. In obtaining the estimated expectancy, the figures are smoothed when necessary to avoid abrupt deviations from the usual trend. For some of the diseases given in the table the available data were not sufficient to make it practicable to compute the estimated expectancy.

Division, State, and city	Population July 1, 1925, estimated	Chick- en pox, cases re- ported	Diphtheria		Influenza		Meas- les, cases re- ported	Mumps, cases re- ported	Pneu- monia, deaths re- ported
			Cases, esti- mated expect- ancy	Cases re- ported	Cases re- ported	Deaths re- ported			
NEW ENGLAND									
Maine:									
Portland.....	75,333	0	1	0	9	0	138	6	5
New Hampshire:									
Concord.....	22,546	0	0	0	0	0	0	0	4
Nashua.....	20,723	0	0	0	0	0	0	0	0
Vermont:									
Barre.....	10,008	0	0	0	0	0	0	0	1
Burlington.....	21,089	0	1	8	0	0	1	0	2
Massachusetts:									
Boston.....	779,620	32	56	32	39	9	180	39	52
Fall River.....	128,993	1	3	5	8	4	5	4	3
Springfield.....	142,065	4	4	2	1	2	97	0	4
Worcester.....	190,757	1	5	2	15	3	2	0	29
Rhode Island:									
Pawtucket.....	69,760	0	1	0	0	1	48	0	8
Providence.....	267,018	0	10	5	2	4	74	0	10
Connecticut:									
Bridgeport.....	(1)	0	7	3	16	11	3	1	7
Hartford.....	160,197	5	7	4	6	1	42	0	14
New Haven.....	178,927	2	3	0	3	0	76	3	6
MIDDLE ATLANTIC									
New York:									
Buffalo.....	538,016	14	12	12	11	18	10	1	25
New York.....	5,873,356	111	246	129	244	72	2,017	45	415
Rochester.....	316,786	11	7	19	1	3	183	0	5
Syracuse.....	182,003	2	6	1	0	1	73	9	2
New Jersey:									
Camden.....	128,642	7	5	5	1	1	17	0	6
Newark.....	452,513	38	17	3	16	4	317	5	26
Trenton.....	132,020	5	4	1	2	3	41	1	11
Pennsylvania:									
Philadelphia.....	1,979,364	51	76	68	-----	16	859	11	109
Pittsburgh.....	631,563	27	13	13	-----	35	20	0	72
Reading.....	112,707	7	3	0	-----	0	18	0	9

## City reports for week ended April 10, 1926—Continued

Division, State, and city	Population July 1, 1925, estimated	Chicken pox, cases reported	Diphtheria		Influenza		Measles, cases reported	Mumps, cases reported	Pneumonia, deaths reported
			Cases, estimated expectancy	Cases reported	Cases reported	Deaths reported			
EAST NORTH CENTRAL									
Ohio:									
Cincinnati.....	406,333	1	8	6	14	24	63	2	28
Cleveland.....	936,485	15	20	24	59	28	170	2	52
Columbus.....	279,836	3	4	1	1	1	475	1	18
Toledo.....	287,350	47	4	2	3	3	265	0	11
Indiana:									
Fort Wayne.....	97,546	11	2	0	0	0	23	0	0
Indianapolis.....	378,819	10	6	1	0	1	550	4	22
South Bend.....	80,091	3	1	3	0	0	6	0	4
Terre Haute.....	71,071	0	0	0	0	0	11	0	1
Illinois:									
Chicago.....	2,995,239	97	95	54	68	29	143	13	98
Peoria.....	81,564	1	0	0	0	0	0	12	3
Springfield.....	63,923	4	1	0	2	1	36	12	2
Michigan:									
Detroit.....	1,245,824	25	48	30	4	12	450	10	92
Flint.....	130,316	9	4	2	6	2	33	0	7
Grand Rapids.....	153,698	9	3	0	0	5	43	0	5
Wisconsin:									
Kenosha.....	50,891	1	1	0	0	0	2	0	3
Madison.....	46,385	1	0	0	0	0	158	0	7
Milwaukee.....	509,192	108	14	6	34	13	126	30	21
Racine.....	67,707	7	1	2	3	3	0	5	1
Superior.....	39,671	0	0	0	0	0	18	0	1
WEST NORTH CENTRAL									
Minnesota:									
Duluth.....	110,502	14	1	1	0	0	11	1	-
Minneapolis.....	425,435	104	15	27	0	0	412	3	3
St. Paul.....	240,001	25	15	9	0	1	22	4	22
Iowa:									
Davenport.....	52,469	4	0	1	0	-	0	0	10
Des Moines.....	141,441	1	2	1	0	-	395	0	-
Sioux City.....	76,411	2	1	1	0	-	4	1	-
Waterloo.....	36,771	3	0	1	0	-	7	0	-
Missouri:									
Kansas City.....	367,481	9	6	5	9	11	332	2	29
St. Joseph.....	78,342	1	1	1	0	0	10	0	4
St. Louis.....	821,543	36	38	55	3	1	598	4	-
North Dakota:									
Fargo.....	26,403	1	1	0	0	0	0	23	0
Grand Forks.....	14,811	0	0	0	0	-	0	0	-
South Dakota:									
Aberdeen.....	13,056	1	0	0	0	-	8	39	-
Sioux Falls.....	30,127	0	0	0	0	0	9	0	0
Nebraska:									
Lincoln.....	60,941	9	2	0	0	0	0	0	3
Omaha.....	211,768	14	3	1	0	0	50	1	12
Kansas:									
Topeka.....	55,411	14	1	0	0	0	22	0	0
Wichita.....	88,367	4	1	0	0	0	160	0	6
SOUTH ATLANTIC									
Delaware:									
Wilmington.....	122,049	1	2	3	0	0	30	0	9
Maryland:									
Baltimore.....	796,296	56	25	15	20	5	316	142	41
Cumberland.....	33,741	4	1	2	2	1	22	0	0
Frederick.....	12,085	0	0	0	0	1	42	4	2
District of Columbia:									
Washington.....	497,906	37	9	17	1	1	576	0	19
Virginia:									
Lynchburg.....	30,395	11	0	1	0	0	55	0	2
Norfolk.....	( <sup>1</sup> )	13	0	0	0	0	1	2	3
Richmond.....	186,403	7	2	3	0	2	50	12	4
Roanoke.....	58,208	1	0	1	0	2	150	2	7

<sup>1</sup> No estimate made.



## City reports for week ended April 10, 1926—Continued

Division, State, and city	Population July 1, 1925, estimated	Chicken pox, cases reported	Diphtheria		Influenza		Measles, cases reported	Mumps, cases reported	Pneumonia, deaths reported
			Cases, estimated expectancy	Cases reported	Cases reported	Deaths reported			
SOUTH ATLANTIC—con.									
West Virginia:									
Charleston.....	49,019	4	1	1	7	0	13	0	3
Huntington.....	53,485	0	0	0	0	5	0	0	1
Wheeling.....	56,208	3	0	0	0	3	122	0	6
North Carolina:									
Raleigh.....	30,371	4	0	0	0	2	0	0	1
Wilmington.....	37,061	4	0	0	0	0	1	10	1
Winston-Salem.....	69,031	8	1	0	0	0	6	6	5
South Carolina:									
Charleston.....	73,125	0	0	0	0	2	8	0	2
Columbia.....	41,225	5	1	0	0	0	1	3	0
Greenville.....	27,311	1	0	0	0	0	0	2	1
Georgia:									
Atlanta.....	(1)	3	2	2	16	4	12	0	14
Brunswick.....	16,809	5	0	0	0	0	0	0	0
Savannah.....	93,134	2	0	0	12	7	5	0	2
Florida:									
St. Petersburg.....	26,847		0			0			1
Tampa.....	94,743	4	1	0	0	1	2	1	9
EAST SOUTH CENTRAL									
Kentucky:									
Covington.....	58,309		1			4			10
Louisville.....	303,935	7	5	3	15	6	331	0	39
Tennessee:									
Memphis.....	174,533	11	4	13	0	7	93	17	9
Nashville.....	136,220	0	1	4	0	11	39	0	10
Alabama:									
Birmingham.....	20,670	28	2	1	26	17	121	5	11
Mobile.....	65,955	0	0	0	0	1	0	0	4
Montgomery.....	46,481	11	0	1	0	0	0	31	0
WEST SOUTH CENTRAL									
Arkansas:									
Fort Smith.....	31,643	5	1	0	0		0	0	
Little Rock.....	74,216	7	0	0	0	1	35	0	3
Louisiana:									
New Orleans.....	414,423	3	8	3	18	7	17	0	10
Shreveport.....	57,857	6	0	0	0	1	0	13	4
Oklahoma:									
Oklahoma City.....	(1)	1	1	1	28	0	4	0	2
Texas:									
Dallas.....	194,450	24	3	5	1	2	0	0	4
Galveston.....	48,375	0	1	0	0	0	0	0	0
Houston.....	164,954	5	2	6	0	0	0	3	7
San Antonio.....	193,069	1	1	0	0	4	3	0	8
MOUNTAIN									
Montana:									
Billings.....	17,971	1	0	0	0	0	0	1	2
Great Falls.....	29,823	25	0	0	0	0	14	3	0
Helena.....	12,037	0	0	0	0	0	0	0	1
Missoula.....	12,668	0	0	0	0	0	9	4	1
Idaho:									
Boise.....	23,042	3	0	0	0	0	0	3	0
Colorado:									
Denver.....	280,911	23	10	9		5	24	0	5
Pueblo.....	43,787	13	2	0	0	6	6	0	0
New Mexico:									
Albuquerque.....	21,000	0	1	0	0	0	1	7	0
Arizona:									
Phoenix.....	38,669	0	0	2	0	0	0	0	2
Utah:									
Salt Lake City.....	130,948	18	3	4	0	0	2	10	6
Nevada:									
Reno.....	12,665	0	0	0	0	0	0	0	0

1 No estimate made.

## City reports for week ended April 10, 1926—Continued

Division, State, and city	Population July 1, 1925, estimated	Chicken pox, cases reported	Diphtheria		Influenza		Measles, cases reported	Mumps, cases reported	Pneumonia, deaths reported	
			Cases, estimated expectancy	Cases reported	Cases reported	Deaths reported				
PACIFIC										
Washington:										
Seattle.....	(1)	31	4	3	0	-----	38	43	-----	
Spokane.....	108,897	0	3	0	0	0	0	0	-----	
Tacoma.....	104,455	2	1	1	0	0	2	0	5	
Oregon:										
Portland.....	262,363	37	4	5	0	2	25	17	6	
California:										
Los Angeles.....	(1)	48	36	33	9	2	11	12	22	
Sacramento.....	72,200	3	1	4	1	1	0	6	6	
San Francisco.....	557,530	54	21	10	2	1	74	6	9	
Division, State, and city	Scarlet fever		Smallpox		Tuberculosis, deaths reported	Typhoid fever			Whooping cough, cases reported	Deaths, all causes
	Cases, estimated expectancy	Cases reported	Cases, estimated expectancy	Cases reported		Cases, estimated expectancy	Cases reported	Deaths reported		
NEW ENGLAND										
Maine:										
Portland.....	3	4	0	0	2	0	1	0	2	28
New Hampshire:										
Concord.....	1	2	0	0	0	0	0	0	0	9
Nashua.....	2	5	0	0	0	0	0	0	0	8
Vermont:										
Barre.....	1	0	0	0	0	0	0	0	0	5
Burlington.....	0	3	0	0	0	0	0	0	0	6
Massachusetts:										
Boston.....	63	78	1	0	0	22	1	1	0	108
Fall River.....	3	0	0	0	0	3	1	0	0	304
Springfield.....	6	2	0	0	0	2	0	0	0	52
Worcester.....	11	8	0	0	0	1	0	0	0	12
Rhode Island:										
Pawtucket.....	1	0	0	0	2	0	0	0	3	39
Providence.....	9	6	0	0	0	2	0	1	0	104
Connecticut:										
Bridgeport.....	7	23	0	0	5	1	0	0	2	62
Hartford.....	5	3	0	0	1	0	0	0	7	53
New Haven.....	10	9	0	0	3	0	1	0	5	40
MIDDLE ATLANTIC										
New York:										
Buffalo.....	21	8	0	0	0	12	0	0	1	26
New York.....	200	171	0	0	0	149	9	5	4	50
Rochester.....	17	14	0	0	0	3	0	0	0	16
Syracuse.....	15	6	0	0	0	1	1	0	0	15
New Jersey:										
Camden.....	4	12	0	0	0	2	0	0	0	33
Newark.....	25	25	0	0	0	10	1	2	0	8
Trenton.....	3	3	0	0	0	1	0	3	0	0
Pennsylvania:										
Philadelphia.....	75	60	1	0	0	40	3	1	0	36
Pittsburgh.....	22	42	0	0	0	15	0	0	0	75
Reading.....	4	12	0	0	0	2	0	0	0	5
EAST NORTH CENTRAL										
Ohio:										
Cincinnati.....	13	20	2	1	0	12	0	1	0	24
Cleveland.....	23	40	1	0	0	23	1	1	0	91
Columbus.....	8	25	2	5	0	7	0	0	0	1
Toledo.....	15	12	5	0	0	8	0	0	0	22

1 Pulmonary tuberculosis only.

## City reports for week ended April 10, 1926—Continued

Division, State, and city	Scarlet fever		Smallpox			Tuber- culosis, deaths re- ported	Typhoid fever			Whoop- ing cough, cases re- ported	Deaths, all causes
	Cases esti- mated expect- ancy	Cases re- ported	Cases, esti- mated expect- ancy	Cases re- ported	Deaths re- ported		Cases, esti- mated expect- ancy	Cases re- ported	Deaths re- ported		
EAST NORTH CENTRAL—contd.											
Indiana:											
Fort Wayne	4	8	2	0	0	0	0	0	0	3	35
Indianapolis	10	13	5	18	0	11	0	0	0	37	126
South Bend	4	4	1	1	0	0	0	0	0	5	15
Terre Haute	3	3	1	1	0	1	0	0	0	0	18
Illinois:											
Chicago	119	121	3	0	0	70	2	1	1	53	819
Peoria	2	2	0	0	0	1	0	3	0	7	20
Springfield	1	6	0	0	0	2	1	0	0	10	36
Michigan:											
Detroit	84	107	2	0	0	27	2	1	0	38	450
Flint	6	13	1	0	0	1	1	0	0	21	35
Grand Rapids	8	35	1	0	0	1	1	0	0	42	53
Wisconsin:											
Kenosha	3	2	1	0	0	0	0	0	0	0	11
Madison	4	4	1	0	0	0	0	0	0	0	18
Milwaukee	27	25	4	0	0	14	1	1	0	33	161
Racine	3	1	2	0	0	2	0	0	0	29	18
Superior	2	7	3	0	0	1	0	0	0	0	8
WEST NORTH CENTRAL											
Minnesota:											
Duluth	5	25	2	0	0	1	0	2	0	10	18
Minneapolis	30	80	9	1	0	5	1	0	0	10	125
St. Paul	28	45	5	0	0	5	1	1	0	33	67
Iowa:											
Davenport	2	7	3	0	0	0	0	0	0	0	0
Des Moines	7	1	3	0	0	0	0	0	0	0	0
Sioux City	2	8	1	9	0	0	0	0	0	2	0
Waterloo	2	2	0	1	0	0	0	0	0	0	0
Missouri:											
Kansas City	12	20	2	0	0	9	0	0	0	22	129
St. Joseph	3	5	1	0	0	0	0	1	0	3	37
St. Louis	35	190	4	6	0	9	2	1	1	34	295
North Dakota:											
Fargo	2	4	0	0	0	0	0	0	0	1	8
Grand Forks	0	0	0	0	0	0	0	0	0	0	0
South Dakota:											
Aberdeen	1	2	0	0	0	0	0	0	0	7	0
Sioux Falls	2	2	1	1	0	0	0	0	0	0	7
Nebraska:											
Lincoln	4	3	0	2	0	1	0	0	0	7	14
Omaha	3	34	7	8	0	3	0	0	0	3	67
Kansas:											
Topeka	3	2	1	0	0	0	0	0	0	2	18
Wichita	3	4	3	0	0	2	0	0	0	9	33
SOUTH ATLANTIC											
Delaware:											
Wilmington	3	4	0	0	0	2	1	0	0	1	39
Maryland:											
Baltimore	36	30	1	0	0	18	2	1	0	35	264
Cumberland	0	0	0	0	0	0	0	0	0	0	7
Federick	1	0	0	0	0	0	0	0	0	0	5
District of Col.:											
Washington	24	24	2	0	0	14	2	1	0	43	157
Virginia:											
Lynchburg	0	3	0	0	0	1	0	0	0	14	10
Norfolk	1	6	0	0	0	0	1	0	0	5	0
Richmond	2	3	1	0	0	4	0	0	0	2	60
Roanoke	0	1	1	0	0	1	0	0	0	0	22
West Virginia:											
Charleston	0	0	0	0	0	1	0	0	0	3	14
Huntington	1	1	1	0	0	2	0	0	0	0	20
Wheeling	2	1	0	2	0	0	1	0	0	0	33
North Carolina:											
Raleigh	0	0	1	1	0	2	0	0	0	12	11
Wilmington	0	0	1	0	0	1	1	0	0	1	10
Winston-Salem	1	3	5	0	0	5	0	0	0	7	25

## City reports for week ended April 10, 1926—Continued

Division, State, and city	Scarlet fever		Smallpox			Tuber- culosis, deaths re- ported	Typhoid fever			Whoop- ing cough, cases re- ported	Deaths, all causes
	Cases, esti- mated expect- ancy	Cases re- ported	Cases, esti- mated expect- ancy	Cases re- ported	Deaths re- ported		Cases, esti- mated expect- ancy	Cases re- ported	Deaths re- ported		
SOUTH ATLANTIC—continued											
South Carolina:											
Charleston.....	0	1	0	0	0	2	0	0	0	0	27
Columbia.....	0	0	1	1	0	0	0	0	0	2	
Greenville.....	0	0	1	2	0	0	0	0	0	8	5
Georgia:											
Atlanta.....	4	2	3	0	0	5	1	1	0	0	78
Brunswick.....	0	0	0	1	0	0	0	0	0	0	5
Savannah.....	0	0	0	1	0	3	0	0	0	2	34
Florida:											
St. Petersburg.....	0		1		0	0	1		0		19
Tampa.....	0	0	0	28	0	2	1	0	0	0	43
EAST SOUTH CENTRAL											
Kentucky:											
Covington.....	2		0		0	0	1		0		44
Louisville.....	5	9	1	0	0	6	1	0	1	0	131
Tennessee:											
Memphis.....	4	16	3	10	0	5	1	0	0	4	85
Nashville.....	2	2	2	1	0	12	0	0	0	3	60
Alabama:											
Birmingham.....	1	4	9	5	0	3	1	2	0	13	88
Mobile.....	0	0	1	0	0	1	0	0	0	0	26
Montgomery.....	0	1	0	1	0	0	0	0	0	0	31
WEST SOUTH CENTRAL											
Arkansas:											
Fort Smith.....	1	0	0	0			0	0		1	
Little Rock.....	1	0	1	0	0	1	0	0	0	4	
Louisiana:											
New Orleans.....	5	20	3	4	0	13	2	0	0	2	154
Shreveport.....	0	0	3	0	0	4	0	0	0	3	31
Oklahoma:											
Oklahoma City.....	2	0	4	0	0	1	1	1	0	1	26
Texas:											
Dallas.....	2	2	1	8	0	2	1	0	0	17	49
Galveston.....	1	3	1	7	0	1	0	1	0	0	16
Houston.....	1	2	1	12	0	5	0	3	3	0	54
San Antonio.....	0	0	1	0	0	12	1	0	0	1	66
MOUNTAIN											
Montana:											
Billings.....	0	1	1	0	0	0	0	0	0	2	8
Great Falls.....	1	0	1	0	0	1	0	0	0	2	7
Helena.....	0	0	0	0	0	0	0	0	0	0	6
Missoula.....	1	3	0	0	0	0	0	0	0	0	3
Idaho:											
Boise.....	1	0	0	2	0	0	0	0	0	0	3
Colorado:											
Denver.....	11	4	3	0	0	10	0	2	0	65	74
Pueblo.....	1	2	0	0	0	1	1	0	0	1	6
New Mexico:											
Albuquerque.....	1	7	0	0	0	5	0	0	0	9	19
Arizona:											
Phoenix.....	0	1	0	0	0	7	0	0	0	0	13
Utah:											
Salt Lake City.....	3	1	1	1	0	3	0	0	0	54	44
Nevada:											
Reno.....	0	0	0	0	0	0	0	0	0	0	2
PACIFIC											
Washington:											
Seattle.....	9	30	3	5			0	0		3	
Spokane.....	4	0	7	0			0	0		0	
Tacoma.....	2	3	2	6	0	0	0	0	0	11	26
Oregon:											
Portland.....	7	27	11	6	0	4	0	0	0	2	79
California:											
Los Angeles.....	19	16	3	31	25	22	2	2	0	2	270
Sacramento.....	1	1	0	4	0	2	0	2	0	0	38
San Francisco.....	14	8	4	5	1	13	1	1	0	3	143

## City reports for week ended April 10, 1926--Continued

Division, State, and city	Cerebrospinal meningitis		Lethargic encephalitis		Pellagra		Poliomyelitis (infantile paralysis)		
	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases, estimated expectancy	Cases	Deaths
NEW ENGLAND									
Massachusetts:									
Boston.....	1	0	1	0	0	0	0	1	0
MIDDLE ATLANTIC									
New York:									
New York.....	8	7	9	3	0	0	1	0	1
Rochester.....	1	0	0	0	0	0	0	0	0
New Jersey:									
Newark.....	1	0	1	0	0	0	0	0	0
Pennsylvania:									
Philadelphia.....	0	0	2	2	0	0	0	0	1
EAST NORTH CENTRAL									
Illinois:									
Chicago.....	1	1	0	0	0	0	0	0	0
Michigan:									
Detroit.....	2	0	0	0	0	0	0	0	0
WEST NORTH CENTRAL									
Minnesota:									
Duluth.....	1	0	0	0	0	0	0	0	0
Minneapolis.....	0	0	0	1	0	0	0	0	0
Nebraska:									
Omaha.....	0	0	0	0	0	0	0	1	0
SOUTH ATLANTIC									
Maryland:									
Baltimore.....	0	0	1	0	0	0	0	0	1
South Carolina:									
Charleston.....	0	0	0	0	0	2	0	0	0
Georgia:									
Atlanta.....	0	0	0	0	0	1	0	0	0
EAST SOUTH CENTRAL									
Kentucky:									
Louisville.....	0	1	0	0	0	0	0	0	0
Alabama:									
Birmingham.....	0	0	0	0	0	0	0	1	1
WEST SOUTH CENTRAL									
Louisiana:									
Shreveport.....	0	0	0	0	0	1	0	0	0
MOUNTAIN									
Montana:									
Missoula.....	1	1	0	0	0	0	0	0	0
PACIFIC									
Washington:									
Tacoma.....	1	0	0	0	0	0	0	0	0
Oregon:									
Portland.....	0	1	0	0	0	0	0	1	0
California:									
Los Angeles.....	1	0	1	0	0	0	0	0	1
San Francisco.....	1	0	0	0	0	0	0	0	0

The following table gives the rates per 100,000 population for 103 cities for the five-week period ended April 10, 1926, compared with those for a like period ended April 11, 1925. The population figures used in computing the rates are approximate estimates as of July 1, 1925 and 1926, respectively, authoritative figures for many of the cities not being available. The 103 cities reporting cases had an estimated aggregate population of nearly 30,000,000 in 1925 and nearly 30,500,000 in 1926. The 96 cities reporting deaths had more than 29,250,000 estimated population in 1925 and more

than 29,750,000 in 1926. The number of cities included in each group and the estimated aggregate populations are shown in a separate table below.

*Summary of weekly reports from cities, March 7 to April 10, 1926—Annual rates per 100,000 population—Compared with rates for the corresponding period of 1925<sup>1</sup>*

## DIPHTHERIA CASE RATES

	Week ended—									
	Mar. 14, 1925	Mar. 13, 1926	Mar. 21, 1925	Mar. 20, 1926	Mar. 28, 1925	Mar. 27, 1926	Apr. 4, 1925	Apr. 3, 1926	Apr. 11, 1925	Apr. 10, 1926
103 cities.....	162	<sup>2</sup> 114	161	<sup>2</sup> 120	<sup>4</sup> 162	<sup>5</sup> 131	170	<sup>2</sup> 126	152	<sup>2</sup> 117
New England.....	170	78	141	128	115	139	165	80	161	125
Middle Atlantic.....	213	112	196	125	230	142	240	145	219	125
East North Central.....	120	<sup>6</sup> 107	125	98	104	101	86	<sup>6</sup> 112	91	83
West North Central.....	195	214	193	144	239	146	213	156	219	209
South Atlantic.....	86	86	129	69	90	<sup>7</sup> 62	77	96	69	86
East South Central.....	37	<sup>2</sup> 28	63	<sup>3</sup> 28	53	<sup>3</sup> 39	21	<sup>1</sup> 61	32	<sup>1</sup> 121
West South Central.....	150	103	92	103	114	155	79	60	101	60
Mountain.....	102	109	139	73	129	255	120	146	102	118
Pacific.....	168	148	237	253	<sup>4</sup> 170	240	356	202	163	137

## MEASLES CASE RATES

	433	<sup>1</sup> 1,693	487	<sup>3</sup> 1,786	<sup>4</sup> 480	<sup>5</sup> 1,837	537	<sup>2</sup> 1,695	510	<sup>3</sup> 1,784
103 cities.....										
New England.....	522	1,969	700	1,725	728	1,347	923	1,463	975	1,572
Middle Atlantic.....	516	1,713	595	1,855	630	1,636	731	1,847	677	1,769
East North Central.....	695	<sup>2</sup> 2,132	726	1,991	747	2,088	685	<sup>6</sup> 1,503	658	1,570
West North Central.....	72	1,637	90	1,872	86	2,306	74	2,391	50	3,240
South Atlantic.....	138	2,267	179	2,795	129	<sup>7</sup> 2,750	198	2,671	196	2,652
East South Central.....	11	<sup>1</sup> 1,499	63	<sup>2</sup> 2,408	32	<sup>3</sup> 3,096	63	<sup>3</sup> 3,063	32	<sup>3</sup> 3,218
West South Central.....	84	39	40	43	9	125	84	43	48	237
Mountain.....	740	337	555	328	37	<sup>8</sup> 310	213	555	55	419
Pacific.....	105	326	180	321	<sup>4</sup> 144	453	199	248	229	391

## SCARLET FEVER CASE RATES

	415	<sup>2</sup> 303	411	<sup>3</sup> 301	<sup>4</sup> 403	<sup>5</sup> 325	394	<sup>2</sup> 296	353	<sup>2</sup> 274
103 cities.....										
New England.....	515	333	525	404	582	355	515	392	510	319
Middle Atlantic.....	437	192	416	202	404	210	434	210	358	176
East North Central.....	460	<sup>6</sup> 370	460	340	449	407	412	<sup>6</sup> 331	391	330
West North Central.....	697	893	768	800	731	889	713	774	627	833
South Atlantic.....	207	150	138	158	157	<sup>7</sup> 156	165	173	144	147
East South Central.....	326	<sup>3</sup> 149	263	<sup>3</sup> 154	263	<sup>3</sup> 149	242	<sup>3</sup> 231	257	<sup>3</sup> 176
West South Central.....	101	112	128	133	97	146	48	86	84	116
Mountain.....	194	218	416	246	240	209	268	140	250	100
Pacific.....	213	261	207	280	<sup>4</sup> 211	288	182	251	166	156

## SMALLPOX CASE RATES

	59	<sup>2</sup> 40	61	<sup>3</sup> 36	<sup>4</sup> 56	<sup>5</sup> 38	55	<sup>2</sup> 42	49	<sup>2</sup> 33
103 cities.....										
New England.....	0	0	0	0	0	0	12	0	2	0
Middle Atlantic.....	5	0	8	0	7	0	21	0	10	0
East North Central.....	37	<sup>1</sup> 19	30	26	31	10	22	<sup>6</sup> 17	21	18
West North Central.....	121	67	98	49	131	<sup>7</sup> 84	67	84	60	51
South Atlantic.....	56	49	54	60	63	<sup>7</sup> 96	46	41	40	66
East South Central.....	410	<sup>2</sup> 72	593	<sup>3</sup> 88	333	<sup>3</sup> 61	378	<sup>3</sup> 105	525	<sup>3</sup> 94
West South Central.....	70	142	101	138	101	142	44	90	48	133
Mountain.....	92	18	65	64	18	27	18	55	18	27
Pacific.....	235	262	202	164	<sup>4</sup> 182	210	243	348	141	137

<sup>1</sup> The figures given in this table are rates per 100,000 population, annual basis, and not the number of cases reported. Populations used are estimated as of July 1, 1925 and 1926, respectively.

<sup>2</sup> Madison, Wis., and Covington, Ky., not included.

<sup>3</sup> Covington, Ky., not included.

<sup>4</sup> Spokane, Wash., not included.

<sup>5</sup> Norfolk, Va., and Covington, Ky., not included.

<sup>6</sup> Madison, Wis., not included.

<sup>7</sup> Norfolk, Va., not included.

Summary of weekly reports from cities, March 7 to April 10, 1926—Annual rates per 100,000 population—Compared with rates for the corresponding period of 1925—Continued.

## TYPHOID FEVER CASE RATES

	Week ended—									
	Mar. 14, 1925	Mar. 13, 1926	Mar. 21, 1925	Mar. 20, 1926	Mar. 28, 1925	Mar. 27, 1926	Apr. 4, 1925	Apr. 3, 1926	Apr. 11, 1925	Apr. 10, 1926
103 cities.....	9	28	11	6	10	8	8	10	9	7
New England.....	5	5	29	0	12	0	5	7	2	9
Middle Atlantic.....	5	7	8	4	7	10	4	8	9	5
East North Central.....	3	4	0	3	3	4	3	3	6	3
West North Central.....	10	4	8	2	0	2	2	8	2	10
South Atlantic.....	23	4	21	21	12	16	29	17	19	6
East South Central.....	32	4	42	22	53	17	16	33	16	11
West South Central.....	26	4	22	9	40	9	31	34	35	17
Mountain.....	18	146	0	9	0	27	0	36	18	18
Pacific.....	14	0	0	3	26	13	19	11	8	13

## INFLUENZA DEATH RATES

96 cities.....	33	71	40	76	31	77	33	89	26	74
New England.....	34	24	29	45	29	69	34	109	31	83
Middle Atlantic.....	24	105	29	95	22	111	21	100	16	76
East North Central.....	31	32	46	65	38	104	36	110	25	81
West North Central.....	82	35	40	31	44	39	33	38	36	31
South Atlantic.....	31	77	50	51	12	82	27	53	25	58
East South Central.....	84	197	110	223	79	254	63	99	68	239
West South Central.....	102	104	73	156	34	123	34	109	44	71
Mountain.....	46	146	46	46	37	64	176	27	83	46
Pacific.....	15	21	11	18	47	14	25	21	11	14

## PNEUMONIA DEATH RATES

96 cities.....	214	325	208	372	197	372	197	335	194	277
New England.....	220	217	204	357	211	430	242	468	204	359
Middle Atlantic.....	213	460	216	503	198	493	214	432	189	338
East North Central.....	226	289	208	355	201	351	171	321	178	245
West North Central.....	169	146	167	144	161	159	186	159	220	184
South Atlantic.....	232	301	275	349	232	330	219	239	223	285
East South Central.....	336	339	263	400	247	477	247	358	315	431
West South Central.....	169	255	169	279	160	175	160	198	160	170
Mountain.....	208	300	166	200	194	191	157	155	259	137
Pacific.....	138	92	116	99	142	117	142	57	105	149

<sup>2</sup> Madison, Wis., and Covington, Ky., not included.

<sup>3</sup> Covington, Ky., not included.

<sup>4</sup> Spokane, Wash., not included.

<sup>5</sup> Norfolk Va., and Covington, Ky., not included.

<sup>6</sup> Madison, Wis., not included.

<sup>7</sup> Norfolk, Va., not included.

Number of cities included in summary of weekly reports, and aggregate population of cities in each group, approximated as of July 1, 1925 and 1926, respectively

Group of cities	Number of cities reporting cases	Number of cities reporting deaths	Aggregate population of cities reporting cases		Aggregate population of cities reporting deaths	
			1925	1926	1925	1926
Total.....	103	96	29, 044, 996	30, 473, 129	29, 251, 638	29, 764, 201
New England.....	12	12	2, 176, 124	2, 206, 134	2, 176, 124	2, 206, 124
Middle Atlantic.....	10	10	10, 346, 970	10, 473, 970	10, 346, 970	10, 473, 970
East North Central.....	16	16	7, 481, 656	7, 655, 436	7, 481, 656	7, 655, 436
West North Central.....	14	11	2, 594, 962	2, 634, 662	2, 461, 830	2, 499, 036
South Atlantic.....	21	21	2, 716, 070	2, 776, 070	2, 716, 070	2, 776, 070
East South Central.....	7	7	993, 103	1, 004, 953	993, 103	1, 004, 953
West South Central.....	8	6	1, 184, 057	1, 212, 057	1, 078, 198	1, 103, 695
Mountain.....	9	9	563, 912	572, 773	563, 912	572, 773
Pacific.....	6	4	1, 888, 142	1, 934, 084	1, 434, 245	1, 469, 144

# FOREIGN AND INSULAR

## THE FAR EAST

*Report for week ended April 3, 1926.*—The following report for the week ended April 3, 1926, was transmitted by the far eastern bureau of the health section of the League of Nations, secretariat, located at Singapore, to the headquarters at Geneva:

Port	Plague		Cholera		Small-pox		Port	Plague		Cholera		Small-pox	
	Cases	Deaths	Cases	Deaths	Cases	Deaths		Cases	Deaths	Cases	Deaths	Cases	Deaths
Calcutta							Osaka	0	0	0	0	1	—
Bombay		1	0	32	7	16	Niigata	0	0	0	0	0	0
Madras		7	0	7	0	1	Tsukuba	0	0	0	0	0	0
Rangoon		2	0	13	0	3	Hakodate	0	0	0	0	0	0
Karachi		2	0	8	0	0	Keelung (Formosa)	0	0	0	0	0	0
Negapatam		0	0	0	0	0	Fusan	0	0	0	0	0	0
Colombo	0	0	0	0	0	0	Chemulpo	0	0	0	0	0	0
Batavia	0	0	0	0	0	2	Dairen	0	0	0	0	2	1
Singapore	0	0	0	0	0	0	Adelaide	0	0	0	0	0	0
Port Swettenham	0	0	0	0	0	0	Brisbane	0	0	0	0	0	0
Penang	0	0	0	0	0	0	Fremantle	0	0	0	0	0	0
Batavia	0	0	0	0	0	0	Melbourne	0	0	0	0	0	0
Surabaya	0	0	0	0	0	0	Sydney	0	0	0	0	0	0
Samarang	0	0	0	0	0	0	Rockhampton	0	0	0	0	0	0
Cheriton	0	0	0	0	0	0	Townsville	0	0	0	0	0	0
Belawan Deli	0	0	0	0	0	0	Port Darwin	0	0	0	0	0	0
Palembang	0	0	0	0	0	0	Broome	0	0	0	0	0	0
Sabang (Rbio)	0	0	0	0	0	0	Port Moresby	0	0	0	0	0	0
Makassar	0	0	0	0	0	0	Auckland	0	0	0	0	0	0
Menada	0	0	0	0	0	0	Wellington	0	0	0	0	0	0
Banjermassin	0	0	0	0	0	0	Christchurch	0	0	0	0	0	0
Balik-Papan	0	0	0	0	0	0	Invercargill	0	0	0	0	0	0
Tarakan	0	0	0	0	0	0	Noumea (New Caledonia)	0	0	0	0	0	0
Sandakan (North Borneo)	0	0	0	0	0	0	Honolulu	0	0	0	0	0	0
Kuching (Sarawak)	0	0	0	0	1	0	Suez	1	0	0	0	1	0
Timor Dilly	0	0	0	0	0	0	Tor (Quarantine Station)	0	0	0	0	0	0
Manila	0	0	0	0	0	0	Alexandria	0	0	0	0	0	0
Iloilo	0	0	0	0	0	0	Port Said	0	0	0	0	0	0
Jolo	0	0	0	0	0	0	Port Sudan	0	0	0	0	0	0
Cebu	0	0	0	0	0	0	Mombasa (Kenya)	0	0	0	0	0	0
Zamboanga	0	0	0	0	0	0	Massowah	0	0	0	0	0	0
Bangkok	0	0	91	54	7	5	Djibuti	0	0	0	0	0	0
Saigon and Cholon	0	0	13	7	2	0	Berbera	0	0	0	0	0	0
Haiphong	0	0	0	0	1	0	Mozambique	0	0	0	0	0	0
Tourane	0	0	0	0	0	0	Lourenco Marques	0	0	0	0	0	0
Hongkong	0	0	0	0	2	0	Durban	0	0	0	0	0	0
Shanghai	0	0	0	0	3	0	East London	0	0	0	0	0	0
Amoy	0	0	0	0	4	3	Port Elizabeth	0	0	0	0	0	0
Nagasaki	0	0	0	0	0	0	Cape Town	0	0	0	0	0	0
Yokohama	0	0	0	0	3	0	Port Louis (Mauritius)	0	0	0	0	0	0
Simonoseki	0	0	0	0	0	0	Seychelles	0	0	0	0	0	0
Mohi	0	0	0	0	1	0							
Kobe	0	0	0	0	0	0							



## BAHAMA ISLANDS

*Quarantine against vessels from Florida on account of smallpox.*—On March 25, 1926, an order in council was issued by the Bahamas Government, declaring all ports of Florida infected, setting forth preventive measures to be followed, and repealing the order in council dated January 22, 1926. The order contains the following provisions:

(a) All vessels arriving at any port or place in the colony from Florida are to be quarantined at the quarantine station, Nassau, for 21 days and all vessels which have touched at any port or place in Florida within 21 days of their arrival at any port or place in the colony are to be quarantined at the quarantine station aforesaid for such number of days as will complete 21 days from Florida; that is, there shall be no communication between the said vessels and the shore, and only the port officials and health officers will be allowed to go on board.

(b) All persons coming from Florida either directly or indirectly are to produce medical certificates of recent vaccination, or otherwise satisfy the health officer that have been recently vaccinated.

(c) All mails and passengers' baggage from Florida are to be fumigated.

This order shall remain in force for 16 weeks from the date hereof.

The order in council dated the 22d day of January, 1926, prohibiting any communication by sea or air with the State of Florida is hereby repealed.

## CANADA

*Communicable diseases—Week ended April 10, 1926.*—The Canadian Minister of Health reports certain communicable diseases in six Provinces of Canada for the week ended April 10, 1926, as follows:

Disease	Nova Scotia	New Brunswick	Ontario	Manitoba	Saskatchewan	Alberta	Total
Cerebrospinal fever.....				1			1
Influenza.....	85			1			86
Smallpox.....			21	4	5	3	33
Typhoid fever.....	5	4	13				22

*Communicable diseases—Ontario—March, 1926 (comparative).*—During the month of March, 1926, communicable diseases were reported in the Province of Ontario as follows:

Disease	MARCH, 1920		MARCH, 1926	
	Cases	Deaths	Cases	Deaths
Cerebrospinal meningitis.....		7		3
Chancroid.....			2	
Chicken pox.....	640		398	
Diphtheria.....	155	9	265	15
German measles.....	943		27	
Gonorrhea.....	132		110	
Influenza.....		44		56
Lethargic encephalitis.....	1	1	7	4
Measles.....	2,661	5	1,663	7
Mumps.....	415		1,231	
Pneumonia.....		237		230
Polio-myelitis.....				1
Scarlet fever.....	632	12	681	8
Septic sore throat.....	2		7	2
Smallpox.....	45	1	16	
Syphilis.....	103		101	
Tuberculosis.....	144	88	159	80
Typhoid fever.....	33	1	72	8
Whooping cough.....	310	7	464	13

*Smallpox*.—The occurrence of smallpox was distributed in 16 localities, with the greatest number of cases reported at Kitchener, viz, 14. At Toronto 1, Marmora village 1, Belleville 1, Kingston 1, Guelph 2, Eganville 1, Bradford 1, Sarnia 3, Blind River 1, Sudbury 1, Percy Township 1, Wilmot Township 3, Marmora Township 1, Sydney Township 1, and King Township 12. One death was reported at Kitchener.

### CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER

The reports contained in the following tables must not be considered as complete or final as regards either the lists of countries included or the figures for the particular countries for which reports are given.

#### Reports Received During Week Ended April 30, 1926<sup>1</sup>

##### CHOLERA

Place	Date	Cases	Deaths	Remarks
India:				
Calcutta.....	Feb. 28-Mar. 6....	48	45	
Madras.....	Mar. 7-20.....	30	16	
Rangoon.....	Feb. 23-Mar. 6....	1	1	
Philippine Islands:				
Rizal Province.....	Jan. 17-30.....	9	3	
Siam:				
Bangkok.....	Feb. 14-20.....	26	17	

##### PLAGUE

Belgium:				
Vilvorde.....	Dec. 1-8.....	1	1	
China:				
Nanking.....	Mar. 7-27.....			Present.
Egypt:				
Alexandria.....	Mar. 12-18.....	1	1	Bubonic.
Greece:				
Athens.....	Feb. 1-Mar. 31....	11	1	
India:				
Madras.....	Feb. 14-20.....	100	83	
Rangoon.....	Feb. 23-Mar. 6....	12	14	
Iraq:				
Bagdad.....	Feb. 21-27.....	13	11	
Java:				
Province.....				
Batavia.....	Feb. 20-Mar. 5....	73	71	
Siam:				
Bangkok.....	Feb. 14-20.....	1	1	

##### SMALLPOX

Algeria:				
Algiers.....	Mar. 11-20.....	8		
Canada:				
Manitoba.....				
Winnipeg.....	Apr. 4-10.....	1	1	
China:				
Amoy.....	Mar. 14-20.....		5	
Chungking.....	Feb. 23-Mar. 20....			Present.
Manchuria:				
An-shan.....	Mar. 14-20.....	3		
Changchun.....	do.....	1		
Fushun.....	do.....	1		
Harbin.....	Mar. 5-11.....	2		
Liao-yang.....	Mar. 14-20.....	1		
Sipingkal.....	do.....	1		
Nanking.....	Mar. 7-27.....			Do.
Tientsin.....	Feb. 21-27.....	1		

<sup>1</sup> From medical officers of the Public Health Service, American consuls, and other sources.

# CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued

## Reports Received During Week Ended April 30, 1926—Continued

### SMALLPOX—Continued

Place	Date	Cases	Deaths	Remarks
Chosen:				
Seishin.....	Feb 1-23.....	13	25	
Great Britain:				
England and Wales.....	Mar. 28-Apr. 3.....	130		
Greece:				
Athens.....	Mar. 1-31.....	37	3	
India:				
Calcutta.....	Feb. 28-Mar. 6.....	61	37	
Bombay.....	Feb. 20-Mar. 6.....	59	37	
Karachi.....	Mar. 7-13.....	5	2	
Madras.....	Mar. 7-20.....	42	3	
Rangoon.....	Feb. 28-Mar. 6.....	8	9	
Indo-China:				
Saigon.....	Feb. 8-28.....	3		Including 100 square kilometers of surrounding country.
Iraq:				
Bagdad.....	Feb. 21-27.....	4	3	
Basra.....	Feb. 14-27.....	12	10	
Jamaica.....	Mar. 28-Apr. 3.....	7		Reported as alastrim.
Java:				
Province—				
Batavia.....	Feb. 20-Mar. 5.....	5		
Mexico:				
Saltillo.....	Apr. 4-16.....	1		
San Luis Potosi.....	Mar. 28-Apr. 10.....		14	
Torreón.....	Mar. 1-31.....		11	
Vera Cruz.....	Mar. 14-Apr. 3.....	5	1	
Siam:				
Bangkok.....	Feb. 14-20.....	13	3	
Spain:				
Valencia.....	Mar. 28-Apr. 3.....	1		
Straits Settlements:				
Penang.....	do.....		1	
Sumatra:				
Medan.....	Feb. 14-20.....	1		

### TYPHUS FEVER

Algeria:				
Algiers.....	Mar. 11-20.....	1		
Greece:				
Athens.....	Mar. 1-31.....	7	2	
Palestine:				
Batfa.....	Mar. 16-22.....	1		
Ramleh.....	do.....	1		
Union of South Africa:				
Natal—				
Durban.....	Feb. 28-Mar. 6.....	1		

## Reports Received from December 26, 1925, to April 23, 1926<sup>1</sup>

### CHOLERA

Place	Date	Cases	Deaths	Remarks
Chosen.....	October–November, 1925.....	12	5	
French Settlements in India.....	Dec. 1-31.....	880	712	
India:				
Calcutta.....	Nov. 1-28.....	101	89	Oct. 18, 1925, to Jan. 2, 1926: Cases, 21,316; deaths, 12,371. Jan. 3–Feb. 6, 1926: Cases, 17,858; deaths, 10,650.
Do.....	Dec. 6-26.....		54	
Do.....	Dec. 27–Jan. 16.....		41	
Do.....	Jan. 24–Mar. 6.....	207	179	
Madras.....	Nov. 15–Jan. 2.....	174	70	
Do.....	Jan. 3–Mar. 6.....	93	60	
Rangoon.....	Nov. 8–Dec. 5.....	4	4	
Do.....	Jan. 24–Feb. 13.....	5	3	

<sup>1</sup> From medical officers of the Public Health Service, American consuls, and other sources.

# CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued

Reports Received from December 26, 1925, to April 23, 1926—Continued

## CHOLERA—Continued

Place	Date	Cases	Deaths	Remarks
Indo-China				September, 1925: Cases, 9 deaths, 5. September, 1924: Cases, 7; deaths, 4. (European cases, 2.)
Province—				
Annam	Sept. 1-30	2	2	
Cochin China	do	5	3	
Salgon	Jan. 4-17	2	2	
Tonkin	September, 1925	2		
Japan	Aug. 30-Oct. 17	409		Including 100 square kilometers of surrounding country.
Do.	Oct. 25-Dec. 26	113		
Philippine Islands				
Manila	Nov. 9-Jan. 3	15	10	
Do.	Jan. 1-Mar. 6	3	27	
Province—				
Bataan	Nov. 30-Dec. 26	29	25	
Do.	Jan. 2-16	1	1	
Batangas	Jan. 24-Feb. 13	7	7	
Bohol	Jan. 23-30	1	1	
Bulacan	Oct. 16-Nov. 7	92	64	
Do.	Nov. 23-Dec. 31	200	88	
Do.	Jan. 2-30	6	6	
Laguna	Nov. 23-Dec. 26	18	14	
Do.	Jan. 24-Feb. 6	5	6	
Leyte	Jan. 3-9	2	2	
Mindoro	Dec. 20-31	35	30	
Nueva Ecija	Nov. 30-Dec. 13	7	5	
Pampanga	Nov. 1-7	1	1	
Do.	Nov. 23-Dec. 31	113	85	
Do.	Jan. 2-Feb. 20	38	34	
Rizal	Sept. 27-Nov. 21	75	21	
Do.	Dec. 21-30	14	11	
Do.	Jan. 3-16	76	26	
Romblon	Dec. 7-13	23	12	
Russia	May-June	7		
Do.	July-August	4		
Siam				
Bangkok	Oct. 4-Nov. 14	108	68	
Do.	Nov. 22-Dec. 26	270	149	
Do.	Dec. 27-Feb. 13	187	125	
On vessel:				
Steamship	Oct. 3	9		Arrived at Bangkok, Siam: Cases in coolie passengers.

## PLAGUE

Argentina				
Buenos Aires	Jan. 24-30	1		Jan. 24-30, 1926 6 cases, occurring in interior Provinces of Salta and Santa Fe.
Azores:				
St. Michaels	Jan. 17-30	4	2	
Do.	Feb. 7-13	1		In outskirts of city of Ponta Delgada.
Brazil:				
Bahia	Nov. 8-Dec. 28	3	1	
Do.	Dec. 27-Jan. 30	4	2	
Santos	Dec. 8-21		2	
Sao Paulo	Reported Mar. 25	4	1	
British East Africa:				
Kenya—				
Kisumu	Nov. 22-Dec. 5	1	2	
Do.	Jan. 31-Feb. 27	4	3	
Uganda Protectorate	Sept. 1-Dec. 31	468	426	
Canary Islands:				
La Laguna	Dec. 24	3	2	
Las Palmas	do	1		
Do.	Jan. 7	1	1	
Santa Cruz de Tenerife	Dec. 18-27	3		
Do.	Dec. 28-Feb. 1	3		
Celebes:				
Makassar	Dec. 29-Feb. 2	12	12	Netherlands East Indies.
Ceylon:				
Colombo	Nov. 15-Dec. 5	3	3	1 plague rodent.
Do.	Dec. 27-Jan. 16	2	2	
Do.	Jan. 24-Feb. 27	4	3	Feb. 14-20, 1926: Two plague rodents.
China:				
Nanking	Nov. 15-Mar. 6			Prevalent.

# **CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued**

**Reports Received from December 26, 1925, to April 23, 1926—Continued**

## **PLAGUE—Continued**

Place	Date	Cases	Deaths	Remarks
<b>Ecuador:</b>				
Eloy Alfaro.....	Jan. 1-15.....	1	—	
Guayaquil.....	Nov. 1-Dec. 31.....	31	12	
Do.....	Jan. 1-31.....	34	14	
Do.....	Mar. 1-15.....	9	4	Rats taken, Nov. 1-Dec. 31, 1925, 49,370; rats found infected, 281. Rats taken, Jan. 1-Mar. 15, 1926, 34,393; rats found infected, 477.
Recreo (country estate).....	do.....	1	—	
<b>Egypt</b>				Jan. 1-Dec. 9, 1925. Cases, 133.
Alexandria.....	Mar. 10.....	1	—	
Beni Suef.....	Nov. 18.....	1	1	
Fayoum Province.....	Dec. 8-9.....	1	1	
Gharbia Province.....	Mar. 9.....	1	1	
Minia Province.....	Mar. 4.....	1	1	
<b>Greece.</b>				
Athens.....	Nov. 1-30.....	18	4	Including Piræus.
Do.....	Jan. 1-31.....	14	3	
Herakleion.....	Feb. 4.....	1	—	On island of Crete.
Patras.....	Nov. 13-Dec. 12.....	4	1	
<b>Hawaii Territory</b>				1 plague-infected rodent found near Hamakua Mill Co.
Hawaii—				
Kakuahele.....	Mar. 19.....	1	1	
Honakaa.....	Mar. 16.....	2	—	1 death suspected plague.
Panalo.....				Jan. 29, 1926: Plague-infected rat found in vicinity.
<b>India.</b>				Oct. 18, 1925, to Jan. 2, 1926: Cases, 15,135, deaths, 10,677. Jan. 3-Feb. 6, 1926: Cases, 15,071; deaths, 10,160.
Bombay.....	Dec. 6-12.....	1	1	
Do.....	Jan. 3-Feb. 20.....	—	8	
Calcutta.....	Dec. 6-12.....	—	1	
Kurachi.....	Nov. 1-Dec. 10.....	4	3	
Do.....	Feb. 21-Mar. 6.....	3	3	
Madras Presidency.....	Oct. 23-Nov. 7.....	75	41	
Do.....	Nov. 15-21.....	35	22	
Do.....	Dec. 20-26.....	103	64	
Do.....	Jan. 3-9.....	135	53	
Do.....	Jan. 17-Feb. 13.....	579	348	
Rangoon.....	Oct. 25-Dec. 26.....	23	15	
Do.....	Dec. 27-Feb. 27.....	57	49	
<b>Indo-China.</b>				September, October, 1925: Cases, 25; deaths, 23.
Province—				
Cambodia.....	Sept. 1-30.....	11	11	
Cochin China.....	September - October.....	14	12	
<b>Iraq:</b>				
Bagdad.....	Dec. 13-Jan. 2.....	7	3	
Do.....	Jan. 10-Feb. 20.....	43	26	
<b>Java:</b>				
Batavia.....	Oct. 24-Nov. 6.....	94	30	Province.
Do.....	Nov. 14-Jan. 1.....	315	297	
Do.....	Jan. 2-Feb. 19.....	369	357	
Cheribon.....	Sept. 27-Oct. 17.....	—	166	
Do.....	Nov. 15-Dec. 26.....	—	198	
Do.....	Jan. 3-Feb. 6.....	—	8	
Djakarta.....	Oct. 20-Nov. 9.....	—	—	Epidemic in 1 locality.
Kediri.....	Dec. 7.....	—	—	Do.
Koenigian.....	Dec. 27-Jan. 16.....	—	114	
Pekalongan.....	Sept. 27-Oct. 17.....	—	42	
Do.....	Nov. 8-Dec. 26.....	—	172	
Rembang.....	Oct. 20.....	—	—	Do.
Surabaya.....	Oct. 11-Dec. 26.....	59	59	
Do.....	Dec. 27-Jan. 9.....	—	16	
Do.....	Jan. 17-Feb. 13.....	12	12	
Tegal.....	Sept. 27-Oct. 17.....	6	6	
Do.....	Nov. 8-Dec. 26.....	—	31	
<b>Madagascar.</b>				Nov. 1-December, 1925: Cases, 632; deaths, 503. Jan. 1-31, 1926: Cases, 334; deaths, 303.
Province—				
Ambositra.....	Dec. 16-31.....	9	7	
Do.....	Jan. 1-15.....	2	2	
Itasy.....	Sept. 16-Oct. 31.....	20	20	
Do.....	Nov. 16-Dec. 16.....	34	34	
Do.....	Jan. 1-15.....	29	29	
Moramanga.....	Sept. 16-Dec. 31.....	40	48	
Do.....	Jan. 1-31.....	35	34	
Tananarive.....	Sept. 16-Nov. 30.....	368	341	
Do.....	Dec. 16-31.....	152	143	
Do.....	Jan. 1-31.....	258	227	

# CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued

Reports Received from December 26, 1925, to April 23, 1926—Continued

## PLAGUE—Continued

Place	Date	Cases	Deaths	Remarks
Madagascar—Continued.				
Town—				
Fort Dauphin.....	Sept. 16-Nov. 30.....	6	3	
Do.....	Jan. 16-31.....	1	1	
Tamatave (port).....	Sept. 16-30.....	3	2	
Do.....	Oct. 16-Nov. 30.....	9	9	
Tananarive.....	Sept. 16-30.....	2	2	
Do.....	Nov. 1-30.....	11	11	
Do.....	Jan. 1-31.....	9	9	
Mauritius Island.....	Sept. 26-Dec. 26.....	21	18	
Moca.....	Dec. 1-31.....	2	2	
Pamplemousses.....	Oct. 1-Nov. 30.....	3	2	
Port Louis.....	Oct. 1-Dec. 31.....	13	9	
Rivière du Rempart.....	October.....	2		
Persia:				
Teheran.....	Oct. 21-Nov. 21.....		12	
Peru.....				January, February, 1926: Cases, 290; deaths, 111.
Huacho.....	Jan. 26.....	15		Port 60 miles north of Callao.
Lima.....	Jan. 1-31.....	20		In hospital. Some cases in Province.
Mollendo.....	do.....			12 or 15 cases reported unofficially.
Russia.....	May-June.....	67		
Do.....	July-October.....	166		
Senegal.....	September-October.....	45	25	
Siam.....	Aug. 23-Dec. 26.....	65	53	
Bangkok.....	Nov. 15-23.....	3	3	
Do.....	Jan. 3-30.....	38	33	
Do.....	Feb. 7-13.....	5	4	
Straits Settlements:				
Singapore.....	Nov. 1-Dec. 5.....	8	8	
Do.....	Jan. 3-9.....	2	2	
Syria:				
Beirut.....	Nov. 11-20.....	1		
Do.....	Jan. 21-31.....	1		
Union of South Africa:				
Cape Province—				
Kimberley district.....	Dec. 13-19.....	1		European.
Middleburg district.....	Dec. 6-12.....	1		Native. On farm.
Sieyburg district.....	Nov. 15-21.....	1		
Winburg district.....	Feb. 21-27.....	1		
Orange Free State—				
Boshof district.....	Nov. 29-Dec. 5.....	1	1	In native.
Bothaville district.....	Dec. 6-12.....	1	1	Native. On farm
On vessel:				
Steamship Cid.....				Jan. 29, 1926. At Buenaventura, Colombia. Rat was killed while jumping shore from vessel.

## SMALLPOX

Algeria:				
Algiers.....	Nov. 21-Dec. 31.....	177		
Do.....	Jan. 1-10.....	64		
Do.....	Jan. 21-Mar. 10.....	64		
Arabia:				
Aden.....	Nov. 29-Dec. 5.....	1		Imported.
Do.....	Jan. 10-Mar. 6.....	10	1	
Argentina:				
Rosario.....	October.....		1	
Australia:				
Queensland—				
Brisbane.....	Dec. 9-15.....	1		
Bahamas.....	Feb. 23.....			In Nassau district. Stated to have been imported.
Brazil:				
Manaos.....	Dec. 1-31.....		12	
Do.....	Jan. 31-Feb. 20.....		6	
Para.....	Jan. 10-Mar. 6.....	28	6	
Rio de Janeiro.....	Nov. 1-23.....	134	72	
Do.....	Dec. 6-26.....	65	26	
Do.....	Dec. 27-Feb. 20.....	195	131	

# CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued

Reports Received from December 26, 1925, to April 23, 1926—Continued

## SMALLPOX—Continued

Place	Date	Cases	Deaths	Remarks
British East Africa:				
Kenya—				
Mombasa.....	Nov. 15-Dec. 19.....	14	6	
Do.....	Dec. 27-Jan. 2.....	1	1	From mainland.
Uganda Protectorate.....	Sept. 1-Oct. 31.....	8	4	
British South Africa:				
Northern Rhodesia.....	Jan. 5-11.....	2		
Southern Rhodesia.....	Nov. 13-Dec. 23.....	3		
Canada.....				Sept. 13-Jan. 2: In 7 Provinces, 186 cases. Jan. 3-Feb. 27, 1926: Cases, 277.
Alberta.....				Jan. 3-Apr. 3, 1926: Cases, 55.
Calgary.....	Dec. 13-19.....	1		From Drumheller, vicinity of Calgary.
British Columbia—				
Vancouver.....	Jan. 4-Mar. 27.....	2		
Victoria.....	Mar. 21-27.....	2		
Manitoba.....				Jan. 3-Apr. 3, 1926. Cases, 44.
Winnipeg.....	Dec. 13-19.....	2		
Do.....	Jan. 3-Apr. 3.....	15		
New Brunswick—				
Northumberland.....	Dec. 6-13.....	1		
Ontario.....				Dec. 1-31, 1925: Cases, 32. Jan. 3-Apr. 3, 1926. Cases, 204.
Admaston.....	Jan. 1-Feb. 1.....	16		Township.
Alice and Fraser.....	Feb. 1-28.....	6		Do.
King.....	do.....	7		Do.
Wilmot.....	do.....	6		Do.
Belleville.....	do.....	4		
Kingston.....	Mar. 8-14.....	1		
Kitchener.....	do.....	26		
North Bay.....	Feb. 14-Mar. 14.....	7		
Ottawa.....	Dec. 6-12.....	2		
Do.....	Jan. 3-Feb. 6.....	2		
Sarnia.....	Mar. 14-20.....	1		
Toronto.....	Dec. 27-Jan. 2.....	1		
Do.....	Jan. 3-Mar. 20.....	26		
Trenton.....	do.....	15		
Saskatchewan.....				Jan. 3-Apr. 3, 1926: Cases, 73.
Moose Jaw.....	Feb. 21-Mar. 13.....	2		
Regina.....	Jan. 24-Mar. 13.....	3		
Saskatoon.....	Feb. 14-20.....	1		
Ceylon:				
Colombo.....	Dec. 6-12.....	1		Port case.
Do.....	Jan. 3-Feb. 6.....	5		
Chile:				
Punta Arenas.....	Dec. 13-28.....		8	
Do.....	Dec. 27-Jan. 2.....		4	
China:				
Amoy.....	Oct. 25-Dec. 19.....		1	
Do.....	Jan. 10-Mar. 6.....		11	
Antung.....	Dec. 7-20.....	2		
Changsha.....	Feb. 21-27.....			Present.
Chungking.....	Nov. 15-27.....			Do.
Foochow.....	Nov. 1-Mar. 6.....			Do.
Hankow.....	Nov. 14-Dec. 20.....	4		
Do.....	Jan. 10-Mar. 6.....	3		
Hongkong.....	Nov. 22-Dec. 26.....	4		
Do.....	Jan. 3-Feb. 27.....	9	4	
Manchuria—				
An-shan.....	Dec. 6-12.....	1		
Do.....	Jan. 10-Feb. 13.....	6		South Manchurian Railway.
Changchun.....	Jan. 10-Feb. 27.....	20		Do.
Dairen.....	Oct. 10-Dec. 27.....	73	15	
Do.....	Dec. 28-Mar. 7.....	77	24	
Fushun.....	Jan. 17-23.....	1		Do.
Harbin.....	Jan. 1-Mar. 4.....	3		
Kai-yuan.....	Jan. 10-30.....	4		Do.
Kungchuling.....	Jan. 31-Feb. 20.....	2		
Lio-yang.....	Jan. 17-Mar. 13.....	2		Do.
Mukden.....	Oct. 24-Nov. 15.....	1		Do.
Do.....	Jan. 24-Feb. 27.....	4		Do.
Tieh-ling.....	do.....	2		
Nanking.....	Nov. 21-Dec. 26.....			Present.
Do.....	Dec. 27-Feb. 13.....			Do.
Shanghai.....	Oct. 25-Jan. 2.....	37	36	
Do.....	Jan. 3-Mar. 13.....	56	131	Cases, foreign only.

# CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued

Reports Received from December 26, 1925, to April 23, 1926—Continued

## SMALLPOX—Continued

Place	Date	Cases	Deaths	Remarks
China—Continued.				
Swatow	Nov. 22–Mar. 13.			Prevalent.
Tientsin	Nov. 1–Dec. 19.	2		
Do	Jan. 23–30.	1		
Chosen:				
Seushin	Jan. 1–31.	5	2	
Egypt:				
Alexandria	Dec. 3–31.	5	2	
Do	Jan. 8–14.	2	1	
Do	Jan. 29–Mar. 4.	22	6	
Port Said	Feb. 26–Mar. 4.	1		
Estonia				November, 1925 Cases, 3
France				September–December, 1925: Cases, 253.
Havre	Jan. 25–31.		0	
Paris	Mar. 1–10.	5	1	
Gold Coast	September, December.	58	5	
Great Britain:				
England and Wales				Nov. 15–Dec. 26, 1925: Cases, 790.
Hull	Dec. 27–Jan. 23.	29		Dec. 27–Mar. 27, 1926: Cases, 3,481
Do	Feb. 7–Mar. 27.	9		
Leeds	Jan. 14–Feb. 6.	4		
London	Jan. 31–Feb. 6.		1	
Newcastle-on-Tyne	Nov. 29–Dec. 19.	6		
Do	Dec. 27–Mar. 27.	35	1	
Nottingham	Nov. 22–Dec. 26.	9		
Do	Dec. 27–Feb. 27.	3		
Sheffield	Nov. 22–Dec. 12.	7		
Do	Dec. 20–26.	3		
Do	Dec. 27–Mar. 20.	18		
South Shields	Feb. 9.			Reported present in severe form.
Greece				Oct. 1–31, 1925: Cases, 16.
Athens	Nov. 1–Dec. 31.	18	1	
Do	Jan. 1–Feb. 28.	50	3	
Kalamata	Mar. 1–7.	1		From Patras.
Saloniki	Feb. 16–Mar. 15.		2	
India				Oct. 18–Dec. 26, 1925: Cases, 19,472; deaths, 4,440. Dec. 27, 1925–Feb. 6, 1926: Cases, 36,335; deaths, 11,491.
Bombay	Nov. 8–Dec. 26.	26	20	
Do	Dec. 27–Feb. 20.	113	58	
Calcutta	Nov. 29–Dec. 26.	48	25	
Do	Dec. 27–Feb. 27.	370	225	
Karachi	Nov. 1–21.	23		
Do	Nov. 29–Dec. 5.	4	2	
Do	Dec. 13–19.	3		
Do	Dec. 29–Mar. 6.	79	24	
Madras	Jan. 24–Mar. 6.	34	0	
Rangoon	Oct. 25–Nov. 28.	3		
Do	Dec. 6–26.	4	1	
Do	Dec. 27–Jan. 16.	13	1	
Do	Jan. 24–30.	6		
Do	Jan. 31–Feb. 27.	56	9	
Indo-China				September–October, 1925: Cases, 204; deaths, 62.
Province—				
Annam	Sept. 1–Oct. 31.	90	23	
Cambodia	do.	72	30	
Cochin China	do.	61	30	
Saigon	Dec. 21–27.	2	1	
Do	Jan. 1–Mar. 7.	8	1	Including 100 kilometers of surrounding country.
Tonkin	Dec. 2–Jan. 2.	22		
Iraq:				
Bagdad	Nov. 1–Dec. 26.	19	15	Sept. 6–Oct. 17, 1925: Cases, 81; deaths, 40.
Do	Dec. 27–Feb. 20.	15	7	
Basra	Dec. 27–Feb. 13.	40	32	
Italy				Aug. 2, 1925; Jan. 2, 1926: Cases, 52. Jan. 3–16, 1926: Cases, 12.
Catania	Feb. 15–28.	1	1	
Genoa	Jan. 21–Feb. 10.	4		
Rome	Oct. 12–28.	1		
Jamaica				Nov. 29–Dec. 26, 1925: Cases, 95. Dec. 27, 1925–Feb. 27, 1926: Cases, 260. Mar. 21–27, 1926: Cases, 59. Reported as alastrim.
Kingston	Nov. 29–Dec. 26.	43		Reported as alastrim.
Do	Dec. 27–Jan. 30.	48		Do.
Do	Mar. 21–27.	5		Do.



# CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued

Reports Received from December 26, 1925, to April 23, 1926—Continued

## SMALLPOX—Continued

Place	Date	Cases	Deaths	Remarks
Japan:				
Nagasaki	Feb. 15-21	1		
Taiwan	Nov. 11-Dec. 10	3		
Yokohama	Dec. 14-20	1		
Do.	Feb. 23-Mar. 14	38	5	
Java:				
Batavia	Oct. 24-30	1		
Do.	Nov. 14-Dec. 25	7		
Buitenzorg	Nov. 29-Dec. 5	1		
Cheibon	Nov. 8-Dec. 12	2		
Do.	Jan. 31-Feb. 6		1	
Kraksaan	Oct. 11-17	11		
Malang	Oct. 11-Jan. 16	13		
North Bantam	Oct. 4-17	4		
Pekalongan	Oct. 25-31	1		
Pontianak	Jan. 31-Feb. 6		1	
Probolingo	Oct. 11-17	1		
South Bantam	Oct. 11-17			
Surabaya	Oct. 11-Dec. 26	633	104	
Do.	Dec. 27-Feb. 13	131	40	
Tegal	Oct. 4-10	9	1	
Latvia				December, 1925: Cases, 3.
Malta	Nov. 1-Dec. 21	21	3	
Do.	Jan. 1-Feb. 23	20		
Mexico:				July-September, 1925: Deaths, 1,157.
Agusculientes	Dec. 13-Jan. 2	4	3	
Do.	Jan. 3-30		7	
Do.	Feb. 14-Mar. 27		12	
Durango	Dec. 1-31		1	
Do.	Jan. 1-31		2	
Guadalajara	Dec. 27-Apr. 6		16	
Mexico City	Nov. 28-Dec. 5	1		Including municipalities in Federal District.
Do.	Jan. 3-Mar. 27	7		Do.
San Luis Potosi	Jan. 17-Mar. 20		53	
Tampico	Dec. 21-Jan. 2	1	1	
Do.	Jan. 3-Mar. 10	8		
Torreón	Nov. 1-Dec. 31		51	
Do.	Jan. 1-Feb. 28		54	
Vera Cruz	Mar. 28-Apr. 4	1		
Netherlands:				
The Hague	Jan. 30-Mar. 6	2	1	August-November, 1925: Cases, 347; deaths, 6.
Nigeria:				
Palestine:				
Hebron	Jan. 26-Feb. 1	2		
Tibnas	Feb. 9-15	1		
Persia:				
Teheran	July 23-Dec. 22		775	
Peru:				
Arequipa	Oct. 1-Dec. 31		2	Nov. 1-28, 1925: Cases, 9.
Poland:				
Portugal:				
Lisbon	Oct. 4-31	124		
Do.	Nov. 16-Dec. 27		60	
Do.	Nov. 14-Dec. 25	187		
Do.	Dec. 27-Mar. 27	116	29	
Oporto	Nov. 22-Dec. 19	2	3	
Do.	Dec. 27-Mar. 6	3	1	
Rumania:	August-October	3		
Russia:				May-June, 1925. Cases, 2,333.
Do.	July-October	1,563		
Siam:				July 12-Sept. 5, 1925: Cases, 21; deaths, 6.
Bangkok	Dec. 20-25	3	1	
Do.	Dec. 26-Feb. 13	51	17	
Sierra Leone:				
Konno district	Dec. 16-31	5		
Spain:				
Madrid	Year 1925		18	
Do.	Jan. 1-31		1	
Malaga	Nov. 29-Dec. 5		2	
Do.	Dec. 27-Jan. 2		1	
Valencia	Dec. 20-26	1		
Do.	Dec. 27-Jan. 2		1	
Do.	Jan. 10-Feb. 6	9		
Do.	Feb. 14-Mar. 12	7		
Straits Settlements:				
Singapore	Dec. 20-26	1		
Do.	Jan. 10-16	2	1	

# CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued

Reports Received from December 26, 1925, to April 23, 1926—Continued

## SMALLPOX—Continued

Place	Date	Cases	Deaths	Remarks
Sumatra:				
Medan	Feb. 21-27	1		
Switzerland:				
Lucerne	Oct. 1-Nov. 30	8		June 28-Nov. 21, 1925: Cases, 62;
Do	Jan. 1-31	5		Dec. 27, 1925-Jan. 30, 1926:
Zurich	Dec. 27-Jan. 2	1		Cases, 37.
Trinidad (West Indies):				
Port of Spain	Jan. 1-Mar. 20	8		
Tunisia:				
Tunis	Nov. 21-30	2		
Do	Dec. 11-31	10	1	
Do	Jan. 1-Feb. 20	6		
Union of South Africa:				
Cape Province	Jan. 17-23			Outbreaks.
Orange Free State—				
Kuruman district	Jan. 10-16			Do.
Ladybrand district	Dec. 27-Jan. 2			Do.
Transvaal—				
Belfast district	do			Do.
Germiston district	Jan. 2-9			Do.
Pretoria district	Dec. 6-12			Outbreaks. In native compound.
On vessel	Feb. 21	2		Mexican steamer Montezuma, at Port of Ensenada, Mexico.

## TYPHUS FEVER

Algeria:				
Algiers	Nov. 1-Dec. 20	2		
Do	Jan. 1-Feb. 28	9		
Argentina:				
Rosario	Oct. 13-Dec. 31	2		
Bulgaria:				
Sofia	Sept. 1-Dec. 31	50	3	
Do	Dec. 23-31	1		
Do	Jan. 8-14	2		
Canary Islands:				
Santa Cruz de Tenerife	Mar. 8-14	1		
Chile:				
Ahuao	Dec. 15-31	1		Dec. 15-31, 1925: Cases, 46.
Buenos	do	1		
Chillan	do	24		
Concepcion	do	6		
Lanates	do	1		
Los Angeles	do	5		
Penco	do	2		
San Carlos	do	1		
Talca	do	1		
Valparaiso	do	4		
Do	Nov. 20-Jan. 2		2	
China:				
Antung	Nov. 20-Dec. 27	5	1	
Do	Jan. 4-Mar. 7	7		
Hongkong	Dec. 27-Jan. 2	1		
Manchuria—				
Harbin	Dec. 17-Feb. 4	3		
Czechoslovakia	October-December	145	1	
Egypt:				
Alexandria	Jan. 8-Feb. 25	2		
Cairo	Nov. 5-Dec. 16	3	2	
Port Said	Nov. 19-25	1		
Do	Mar. 12-18	1		
Do	Jan. 1-31	6		
Estonia				
Finland				
France	July-October	4		October, 1925: 1 case.
Greece:				
Athens	Nov. 1-30	11	2	December, 1925: Cases, 12.
Do	Jan. 1-Feb. 28	38	7	
Saloniki	Dec. 29-Jan. 4	1		
Do	Feb. 2-8	1		
Hungary				November-December, 1925: Cases, 16.
Ireland:				
Cork County—				
Cork	Dec. 26-Jan. 1	2		
Do	Jan. 2-8	5		
Durmanway	Nov. 14	1		
Galway County	Oct. 17			

# **CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued**

**Reports Received from December 26, 1925, to April 23, 1926—Continued**

## **TYPHUS FEVER—Continued**

Place	Date	Cases	Deaths	Remarks
Ireland—Continued.				
Kerry County—				
Listowel.....	Mar. 7-13.....	1	—	Rural district.
Wexford County—				
Gorey.....	.....do.....	1	—	Do.
Latvia.....	October-December	4	—	
Lithuania.....				September-October, 1925: Cases, 9, deaths, 1.
Mexico.....				July-September, 1925. Deaths, 90
Agua Calientes.....	Dec. 14-19.....	1	—	
Durango.....	Dec. 1-31.....	—	1	
Do.....	Jan. 1-31.....	—	1	
Guadalajara.....	Dec. 8-28.....	—	2	
Do.....	Dec. 28-Jan. 4.....	—	1	
Mexico City.....	Nov. 22-Dec. 26.....	145	—	Including municipalities in Federal District
Do.....	Dec. 27-Mar. 20.....	84	—	Do.
San Luis Potosi.....	Feb. 6-13.....	—	1	
Tampico.....	Dec. 21-Jan. 10.....	1	1	
Torreon.....	November, 1925.....	—	1	
Vera Cruz.....	Feb. 12.....	—	1	
Morocco.....	August-December.....	93	—	
Norway.....				November-December, 1925: Cases, 2
Palestine:				
Gaza.....	Dec. 18.....	1	—	
Jaffa.....	Dec. 17.....	1	—	
Do.....	Feb. 23-Mar. 1.....	1	—	
Nazareth.....	Nov. 3-9.....	1	—	
Safad.....	Nov. 24-30.....	1	—	
Tel-Aviv.....	.....do.....	1	—	
Do.....	Mar. 9-15.....	1	—	
Tiberias.....	.....do.....	2	—	
Peru:				
Arequipa.....	October-December.....	—	3	
Poland.....	Oct. 11-Nov. 18.....	215	26	
Do.....	Nov. 29-Jan. 2.....	247	18	
Do.....	Jan. 3-16.....	190	14	
Rumania.....				July-October, 1925: Cases, 181; deaths, 22.
Constantza.....	Feb. 1-Mar. 10.....	2	—	
Russia.....				May-June, 1925: Cases, 10,680.
Do.....				July-October, 1925: Cases, 6,035.
Turkey:				
Constantinople.....	Jan. 24-30.....	3	—	
Do.....	Feb. 9-22.....	5	3	From unofficial sources (press).
Union of South Africa.....				October, 1925: Cases, 88, deaths, 7 (colored). Cases, European, 7. December, 1925: Cases, 78; deaths, 9. Colored: Cases, 73; deaths, 9. January, 1926: Cases, 64; deaths, 18. European cases, 5.
Cape Province.....	Oct. 1-31.....	63	5	Continued.
Do.....	Nov. 8-Dec. 31.....	47	8	
Do.....	Jan. 1-Feb. 27.....	74	14	Do.
Grahamstown.....	Jan. 24-30.....	2	—	
Middleburg district.....	Dec. 6-12.....	1	—	European. On farm.
Natal.....	Oct. 1-Dec. 5.....	1	—	
Do.....	Jan. 1-31.....	9	1	Colored.
Durban.....	Jan. 3-Feb. 27.....	3	—	
Orange Free State.....	Nov. 29-Dec. 5.....	23	1	
Do.....	Dec. 1-31.....	8	1	
Do.....	Jan. 1-Feb. 27.....	0	3	Do.
Bethulia district.....	Dec. 6-12.....	—	—	Outbreaks.
Bothaville district.....	.....do.....	1	—	Native. On farm.
Transvaal.....	Oct. 1-31.....	1	1	
Do.....	Dec. 1-31.....	18	—	
Do.....	Feb. 14-27.....	—	—	Outbreaks.
Bloemhof district.....	Dec. 27-Jan. 2.....	—	—	Outbreaks. On farm.
Johannesburg.....	Mar. 1-6.....	2	—	
Yugoslavia.....				Jan. 1-Feb. 21, 1926: Cases, 81; deaths, 12.

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TREASURY DEPARTMENT

# PUBLIC HEALTH REPORTS

ISSUED WEEKLY

BY THE UNITED STATES  
PUBLIC HEALTH SERVICE

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VOLUME 41    ::    NUMBER 19

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MAY 7   -   -   -   -   1926

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## SPECIAL ARTICLES

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Program of Conference of State Health Officers  
Rural Health Service in the United States, 1922-1926  
Court Decisions Relating to the Public Health



WASHINGTON  
GOVERNMENT PRINTING OFFICE  
1926

# UNITED STATES PUBLIC HEALTH SERVICE

HUGH S. CUMMING, *Surgeon General*

## DIVISION OF SANITARY REPORTS AND STATISTICS

Asst. Surg. Gen. B. J. LLOYD, *Chief of Division*

The PUBLIC HEALTH REPORTS are issued weekly by the United States Public Health Service through its Division of Sanitary Reports and Statistics, pursuant to acts of Congress approved February 15, 1893, and August 14, 1912.

They contain: (1) Current information of the prevalence and geographic distribution of preventable diseases in the United States in so far as data are obtainable, and of cholera, plague, smallpox, typhus fever, yellow fever, and other communicable diseases throughout the world. (2) Articles relating to the cause, prevention, or control of disease. (3) Other pertinent information regarding sanitation and the conservation of the public health.

The PUBLIC HEALTH REPORTS are intended primarily for distribution to health officers, members of boards or departments of health, and those directly or indirectly engaged in or connected with public health or sanitary work. Articles of general or special interest are issued as reprints from the PUBLIC HEALTH REPORTS or as supplements, and in these forms are available for general distribution to those desiring them.

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# PUBLIC HEALTH REPORTS

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## CONFERENCE OF STATE AND TERRITORIAL HEALTH OFFICERS WITH THE PUBLIC HEALTH SERVICE

PROGRAM OF THE TWENTY-FOURTH ANNUAL CONFERENCE TO BE HELD MAY 24 AND 25, 1926, AT THE BUREAU OF THE PUBLIC HEALTH SERVICE, WASHINGTON, D. C.

The following is the program of the twenty-fourth annual conference of State and Territorial health officers with the United States Public Health Service, to be held on May 24 and 25, 1926, at the Bureau of the Public Health Service, corner of New Jersey Avenue and B Street SE., Washington, D. C.:

### Morning Session, May 24—9.30 a. m.

1. Opening address.
2. Roll call.
3. Further observations on the status of morbidity reports and the establishment of a morbidity registration area.
  - (1) Present status of reports.
  - (2) Status of proposed registration area.

The discussion on this subject will be opened by Asst. Surg. Gen. B. J. Lloyd.

4. The sanitary control of shellfish.
  - (1) Certification system.
    - (a) What the certification covers.
    - (b) Necessity for cooperation of the consuming States in making certification effective in its results.
  - (2) Recommendations to producing States as to minimum control measures which will be recognized by the Public Health Service as a basis for favorable report on machinery, and efficiency and reliability of control.

Discussion to be opened by Surg. H. E. Hasseltine.

### Afternoon Session, May 24—2 p. m.

5. A summary of the points brought out at the April, 1926, meeting of the advisory committee on the education of sanitarians held at the bureau of the public health service.

Discussion to be opened by Asst. Surg. Gen. W. F. Draper.

6. Plague: Studies in transmission, and geographical limitations of infectibility. (Studies have begun in which health officers in certain ports can help.)

Discussion to be opened by Asst. Surg. Gen. S. B. Grubbs.

7. The present status of smallpox in the United States and measures being taken for its control.

Discussion to be opened by Senior Surg. C. C. Pierce.

**Morning Session, May 25—9.30 a. m.****8. Vaccination of dogs against rabies.**

Frequent inquiries are received from city and county health officials regarding the utility of this measure. Sufficient data are not at hand upon which to base definite recommendations and conclusions.

It is requested that the State health officers secure for presentation at this conference data as to the extent and efficacy of antirabic vaccination in their respective States.

**9. Present status of scarlet fever biologic products. Are they sufficiently standardized to justify their distribution by State health departments as in the case of diphtheria biologics?**

Discussion to be opened by Surg. R. E. Dyer.

**10. Progress in the research work of the United States Public Health Service during the past year.**

Asst. Surg. Gen. A. M. Stimson.

**Afternoon Session, May 25—2 p. m.****11. The sanitation of automobile garages, service and filling stations. Proposed regulations for the manufacture and blending of tetraethyl lead. Distribution of ethyl gasoline.**

Discussion to be opened by Surg. J. P. Leake.

**12. The control of unsegregated lepers in the United States.**

There are presumably about 1,000 lepers in the United States, of which about 260 are at the National Leper Home at Carville, La. It appears to be the practice to consign to the United States Public Health Service chiefly those lepers who have become public charges or alien lepers found within the State. If leprosy is to be eradicated in the United States, more extensive action is needed on the part of State health officers. It is possible that additional legislation may be needed in some States.

Discussion to be opened by Asst. Surg. Gen. F. C. Smith.

**13. Some problems of county health work.**

- (1) Definition of the term "Health Demonstration" and advisability of determining a set of terms to describe various health projects.
- (2) Appraisal of resources and activities of county health departments.
- (3) Uniform or standard forms of reports for county health work.
- (4) General consideration of the cooperative basis for county health work.

Discussion to be opened by Surg. L. L. Lumsden.

**EXTENT OF RURAL HEALTH SERVICE IN THE UNITED STATES, 1922-1926**

By L. L. LUMSDEN, Surgeon, United States Public Health Service

According to data obtained by the Rural Sanitation Office of the Public Health Service from the health departments of the States, the following (Table 1) is a list, by States, of counties (or districts) in which the rural sections at the beginning of the calendar years 1922, 1923, 1924, 1925, and 1926, respectively, were provided with local health service under the administration of whole-time county or (local) district health officers:

TABLE 1.—List of counties, or districts, in which, as of January 1, 1922, 1923, 1924, 1925, and 1926, respectively, rural sections were provided with health service under whole-time local health officers

1922	1923	1924	1925	1926
ALABAMA				
Baldwin Barbour Calhoun Colbert Dallas Covington Etowah Houston Jefferson Lauderdale Madison Mobile Montgomery Morgan Pike Sumter Talladega Tuscaloosa Walker	Baldwin Barbour Calhoun Colbert Covington Dallas Etowah Houston Jefferson Lauderdale Madison Mobile Montgomery Morgan Pike Sumter Talladega Tuscaloosa Walker	Baldwin Barbour Calhoun Colbert Covington Dallas Escambia Etowah Franklin Houston Jefferson Lauderdale Limestone Madison Mobile Montgomery Morgan Pike Sumter Talladega Tuscaloosa Walker	Baldwin Barbour Calhoun Colbert Covington Dallas Escambia Etowah Franklin Houston Jefferson Lauderdale Limestone Madison Marengo Marshall Mobile Montgomery Morgan Pike Sumter Talladega Tuscaloosa Walker	Baldwin Barbour Calhoun Coffee Colbert Covington Dallas Escambia Etowah Franklin Houston Jackson Jefferson Lauderdale Lawrence Lee Limestone Madison Marengo Marshall Mobile Montgomery Morgan Pike Sumter Talladega Tuscaloosa Walker
ARIZONA				
			Cochise	Cochise
ARKANSAS				
				Garland Jefferson Pulaski
CALIFORNIA				
Los Angeles San Francisco <sup>1</sup>	Los Angeles Monterey Orange San Francisco <sup>1</sup> San Luis Obispo	Los Angeles Monterey Orange San Joaquin San Luis Obispo	Los Angeles Monterey Orange San Diego San Joaquin San Luis Obispo	Los Angeles Monterey Orange San Diego San Joaquin San Luis Obispo Santa Barbara
COLORADO				
				Otero
CONNECTICUT				
			Fairfield <sup>2</sup>	Fairfield <sup>2</sup>

<sup>1</sup> As San Francisco County is entirely urban, it should not have been included in either 1922 or 1923, and is omitted from the 1924, 1925, and 1926 lists.

<sup>2</sup> District.

TABLE 1.—*List of counties, or districts, in which, as of January 1, 1922, 1923, 1924, 1925, and 1926, respectively, rural sections were provided with health service under whole-time local health officers—Continued*

1922	1923	1924	1925	1926
FLORIDA				
				Polk
GEORGIA				
Baldwin Bartow Brooks Clarke Cobb Decatur Dougherty Floyd Glynn Hall Laurens Lowndes Mitchell Sumter Thomas Troup Walker Worth	Baldwin Bartow Clarke Cobb Decatur Dougherty Floyd Fulton Glynn Hall Laurens Lowndes Mitchell Richmond Sumter Thomas Troup Walker	Baldwin Bartow Bibb Clarke Cobb Decatur Dekalb Dougherty Floyd Glynn Hall Laurens Lowndes Mitchell Richmond Sumter Thomas Troup Walker	Baldwin Bartow Bibb Clarke Cobb Decatur Dekalb Dougherty Floyd Glynn Hall Laurens Lowndes Miller Mitchell Richmond Seminole Sumter Thomas Troup Walker	Baker Baldwin Bartow Bibb Clarke Cobb Decatur Dekalb Dougherty Floyd Glynn Grady Hall Laurens Lowndes Mitchell Richmond Sumter Thomas Troup Walker Ware
IDAHO				
Bannock Twin Falls Boise				
ILLINOIS				
	Morgan	Morgan	Cook Crawford Morgan Sangamon	Cook Morgan Sangamon
INDIANA				
	Fulton			
IOWA				
Dubuque	Dubuque	Dubuque Washington	Dubuque Washington	Dubuque
KANSAS				
Butler Cherokee Ellis Ford Geary Marion Ottawa Wabaunsee	Butler Cherokee Ellis Ford Geary Marion Ottawa Wabaunsee	Butler Cherokee Ellis Geary Lyon Marion Ottawa Sheridan	Cherokee Geary Lyon Marion Ottawa Sheridan	Butler Coffey Ellis Geary Jefferson Lyon Marion McPherson Ottawa Phillips

TABLE 1.—*List of counties, or districts, in which, as of January 1, 1922, 1923, 1924, 1925, and 1926, respectively, rural sections were provided with health service under whole-time local health officers—Continued*

1922	1923	1924	1925	1926
KENTUCKY				
Bell Boyd Davies Fulton Harran Mason Muhlenberg Scott	Boyd Davies Fulton Harran Jefferson Johnson Mason Scott	Bell Boyd Davies Fayette Fulton Jefferson Johnson Mason Scott	Boyd Davies Fayette Fulton Jefferson Johnson Mason Scott	Boyd Davies Fayette Fulton Jefferson Johnson Mason Scott
LOUISIANA <sup>1</sup>				
Beauregard Caddo De Soto Natchitoches Ouachita Rapides Washington	Beauregard Caddo De Soto Natchitoches Ouachita Rapides Washington	Beauregard Caddo Claiborne De Soto Natchitoches Ouachita Rapides St. Mary Tangipahoa Washington	Beauregard Caddo Claiborne De Soto Natchitoches Ouachita St. Mary Tangipahoa Washington	Caddo Claiborne De Soto Lafourche Natchitoches Ouachita Plaquemines St. Mary Tangipahoa Washington Webster
MAINE <sup>2</sup>				
	Oldtown Rumford Sanford Waterville York	Oldtown Rumford Sanford Waterville York	Oldtown Rumford Sanford Waterville York	Oldtown Rumford Sanford Waterville York
MARYLAND				
Washington	Allegany Montgomery	Allegany Frederick Montgomery	Allegany Baltimore Calvert Carroll Frederick Montgomery	Allegany Baltimore Calvert Carroll Frederick Montgomery
MASSACHUSETTS				
Cape Cod <sup>2</sup>	Cape Cod <sup>2</sup>	Cape Cod <sup>2</sup>	Cape Cod <sup>2</sup>	Cape Cod <sup>2</sup>
MINNESOTA				
		St. Louis	St. Louis	St. Louis
Bolivar Coahoma Forrest Harrison Jones Lee Marshall Union Washington	Bolivar Coahoma Forrest Harrison Hinds Jones Lauderdale Lee Leflore Marshall Tallahatchie Washington	Bolivar Coahoma Forrest Harrison Hinds Jones Lauderdale Lee Tallahatchie Washington	Bolivar Coahoma Forrest Hancock Harrison Jackson Jones Lee Pearl River Sharkey Washington	Bolivar Coahoma Forrest Hancock Harrison Hinds Jackson Jones Lee Leflore Pearl River Sharkey Washington

<sup>1</sup> Districts.

<sup>2</sup> Parishes.

TABLE 1.—List of counties, or districts, in which, as of January 1, 1922, 1923, 1924, 1925, and 1926, respectively, rural sections were provided with health service under whole-time local health officers—Continued

1922	1923	1924	1925	1926
MISSOURI				
Greene Jasper	Cape Girardeau Dunklin Gentry Greene Jasper Monroe New Madrid Nodaway Pettis Polk St. Francois St. Louis	Dunklin Gentry Greene New Madrid Nodaway Pettis Polk St. Francois St. Louis	Dunklin Gentry Greene New Madrid Nodaway Pettis Polk St. Francois St. Louis	Boone Dunklin Greene Jackson New Madrid Nodaway Pemiscot Pettis Polk St. Francois St. Louis
MONTANA				
Cascade Lewis and Clark Missoula Yellowstone	Cascade Lewis and Clark Missoula Yellowstone	Cascade Lewis and Clark Missoula	Cascade Lewis and Clark Missoula	Cascade Lewis and Clark Missoula
NEW MEXICO				
Bernalillo Chaves San Miguel Santa Fe Torrance Union Valencia	Bernalillo Chaves Dona Ana Eddy San Miguel Santa Fe Union Valencia	Bernalillo Chaves Colfax Dona Ana Eddy McKinley San Miguel Santa Fe Union Valencia	Bernalillo Chaves Colfax Dona Ana Eddy McKinley San Miguel Santa Fe Union Valencia	Bernalillo Chaves Colfax Dona Ana Eddy McKinley Santa Fe Union Valencia
NEW YORK				
		Cattaraugus	Cattaraugus	Cattaraugus
NORTH CAROLINA				
Bertie Bladen Buncombe Cabarrus Columbus Craven Cumberland Davidson Durham Edgecombe Forsyth Granville Guilford Halifax Lenoir Mecklenburg New Hanover Northampton Pamlico Pitt Robeson Rowan Sampson Surry Vance Wake Wayne Wilkes Wilson	Bertie Bladen Buncombe Cabarrus Carteret Columbus Craven Cumberland Davidson Durham Edgecombe Forsyth Granville Guilford Halifax Lenoir Mecklenburg New Hanover Northampton Pitt Robeson Rowan Sampson Surry Vance Wake Wayne Wilkes Wilson	Beaufort Bertie Bladen Brunswick Buncombe Cabarrus Columbus Craven Cumberland Davidson Durham Edgecombe Forsyth Granville Guilford Halifax Henderson Hyde Lenoir Mecklenburg New Hanover Northampton Pamlico Pitt Robeson Rowan Sampson Surry Vance Wake Wayne Wilkes Wilson	Beaufort Bertie Bladen Brunswick Buncombe Cabarrus Columbus Craven Cumberland Davidson Durham Edgecombe Forsyth Granville Guilford Halifax Henderson Hyde Lenoir Mecklenburg New Hanover Northampton Pamlico Pitt Robeson Rowan Rutherford Sampson Surry Vance Wake Wayne Wilkes Wilson	Beaufort Bertie Bladen Brunswick Buncombe Cabarrus Columbus Craven Cumberland Davidson Durham Edgecombe Forsyth Granville Guilford Halifax Henderson Johnston Lenoir Mecklenburg New Hanover Northampton Pamlico Pitt Richmond Robeson Rowan Rutherford Sampson Surry Vance Wake Wayne Wilkes Wilson

TABLE 1.—*Last of counties, or districts, in which, as of January 1, 1922, 1923, 1924, 1925, and 1926, respectively, rural sections were provided with health service under whole-time local health officers—Continued*

1922	1923	1924	1925	1926
OHIO				
Allen	Allen	Allen	Allen	Allen
Ashtabula	Ashtabula	Ashtabula	Ashtabula	Ashtabula
Belmont	Auglaize	Athens	Athens	Athens
Butler	Belmont	Auglaize	Belmont	Belmont
Champaign	Butler	Belmont	Butler	Butler
Clermont	Champaign	Butler	Clermont	Clermont
Clinton	Clermont	Clermont	Clinton	Clinton
Columbiana	Clinton	Clinton	Columbiana	Columbiana
Coshocton	Columbiana	Columbiana	Coshocton	Coshocton
Crawford	Coshocton	Coshocton	Crawford	Crawford
Cuyahoga	Crawford	Crawford	Cuyahoga	Cuyahoga
Erie	Cuyahoga	Cuyahoga	Delaware	Delaware
Greene	Erie	Erie	Erie	Erie
Hamilton	Hamilton	Geauga	Fayette	Fayette
Highland	Hocking	Hamilton	Franklin	Franklin
Hocking	Huron	Hancock	Geauga	Geauga
Lake	Lake	Hocking	Hamilton	Hamilton
Lorain	Lorain	Huron	Hancock	Hancock
Lucas	Lucas	Lake	Hocking	Hocking
Madison	Madison	Lorain	Huron	Huron
Mahoning	Mahoning	Lucas	Lake	Jefferson
Marion	Marion	Mahoning	Lorain	Lake
Miami	Miami	Marion	Lucas	Lorain
Monroe	Monroe	Meigs	Mahoning	Lucas
Montgomery	Montgomery	Mercer	Marion	Mahoning
Morrow	Morrow	Miami	Meigs	Marion
Muskingum	Muskingum	Montgomery	Mercer	Meigs
Paulding	Paulding	Morrow	Miami	Mercer
Ross	Perry	Muskingum	Montgomery	Miami
Sandusky	Ross	Morrow	Morrow	Montgomery
Scioto	Sandusky	Paulding	Muskingum	Morrow
Seneca	Scioto	Richland	Paulding	Muskingum
Shelby	Seneca	Ross	Perry	Perry
Stark	Shelby	Sandusky	Richland	Richland
Summit	Stark	Scioto	Ross	Ross
Trumbull	Summit	Seneca	Sandusky	Sandusky
Union	Trumbull	Shelby	Scioto	Scioto
Washington	Tuscarawas	Stark	Seneca	Seneca
Wayne	Union	Summit	Shelby	Shelby
Wood	Washington	Trumbull	Stark	Stark
	Wayne	Tuscarawas	Summit	Summit
	Wood	Union	Trumbull	Trumbull
		Washington	Tuscarawas	Tuscarawas
		Wayne	Union	Union
		Wood	Washington	Washington
			Wayne	Wayne
			Wood	Wood
OKLAHOMA				
Ottawa	Ottawa	Ottawa	Carter	Carter
			Leflore	Leflore
			Muskogee	McCurtain
			Oklahoma	Muskogee
			Pittsburg	Oklahoma
				Okmulgee
				Ottawa
				Pittsburg
OREGON				
	Coos	Coos	Clackamas	Clackamas
			Coos	Coos
			Douglas	Douglas
			Jackson	Jackson
			Klamath	Klamath

TABLE 1.—List of counties, or districts, in which, as of January 1, 1922, 1923, 1924, 1925, and 1926, respectively, rural sections were provided with health service under whole-time local health officers—Continued

1922	1923	1924	1925	1926
SOUTH CAROLINA				
Charleston Cherokee Darlington Fairfield Greenville Newberry Orangeburg	Charleston Cherokee Darlington Fairfield Greenville Newberry Orangeburg	Aiken Anderson Charleston Cherokee Dillon Fairfield Greenville Newberry Orangeburg	Aiken Anderson Beaufort Charleston Cherokee Colleton Darlington Dillon Fairfield Georgetown Greenville Marion Newberry Orangeburg	Aiken Anderson Beaufort Charleston Cherokee Colleton Darlington Dillon Fairfield Georgetown Greenville Greenwood Marion Newberry Orangeburg Spartanburg
SOUTH DAKOTA				
Brown	Brown	Brown	Brown Pennington Yankton	Brown Pennington Yankton
TENNESSEE				
Davidson Montgomery Roane Williamson	Davidson Gibson Montgomery Roane Williamson	Blount Davidson Gibson Montgomery Obion Roane Sevier Williamson	Blount Davidson Gibson Montgomery Obion Roane Rutherford Sevier Williamson	Blount Davidson Dyer Gibson Hamilton Montgomery Obion Roane Rutherford Sevier Weakley Williamson
TEXAS				
Dallam Dallas Hidalgo Jefferson Tarrant	Cherokee Dallam Dallas Hidalgo Jefferson Tarrant	Dallam Hidalgo Jefferson Red River Tarrant Washington	Falls Hidalgo Nueces Tarrant	Cameron Hidalgo Jefferson McLennan Tarrant
UTAH				
Weber	Weber	Weber	Davis Weber	Davis Weber



TABLE 1.—List of counties, or districts, in which, as of January 1, 1922, 1923, 1924, 1925, and 1926, respectively, rural sections were provided with health service under whole-time local health officers—Continued

1922	1923	1924	1925	1926
VERMONT <sup>2</sup>				
First Second Third Fourth Fifth Sixth Seventh Eighth Ninth Tenth	First Second Third Fourth Fifth Sixth Seventh Eighth Ninth Tenth			
VIRGINIA				
Albemarle Arlington Augusta Fairfax Fauquier Halifax Hanover Norfolk Tazewell Wise	Albemarle Arlington Augusta Fairfax Halifax Nansemond Norfolk Russell Wise	Accomac Albemarle Arlington Augusta Fairfax Halifax Henrico James City Loudoun Nansemond Norfolk Princess Anne Russell Wise	Accomac Albemarle Arlington Augusta Brunswick Fairfax Halifax Henrico Isle of Wight James City Nansemond Northampton Wise	Accomac Albemarle Arlington Augusta Brunswick Fairfax Halifax Henrico Isle of Wight James City Nansemond Northampton Sussex Wise
WASHINGTON				
King Spokane Walla Walla Yakima	Chelan King Spokane Yakima	Chelan King Spokane Walla Walla Yakima	Chelan King Spokane Walla Walla Yakima	Chelan King Walla Walla Yakima
WEST VIRGINIA				
Greenbrier Logan Mingo	Logan Marion Mingo Preston	Hancock Harrison Logan Marion Preston Taylor	Gilmer Hancock Harrison Logan Marion Marshall Preston Taylor	Gilmer Hancock Harrison Logan Marion Marshall Preston Roane
WYOMING				
		Natrona	Natrona	Natrona

<sup>2</sup> Districts.

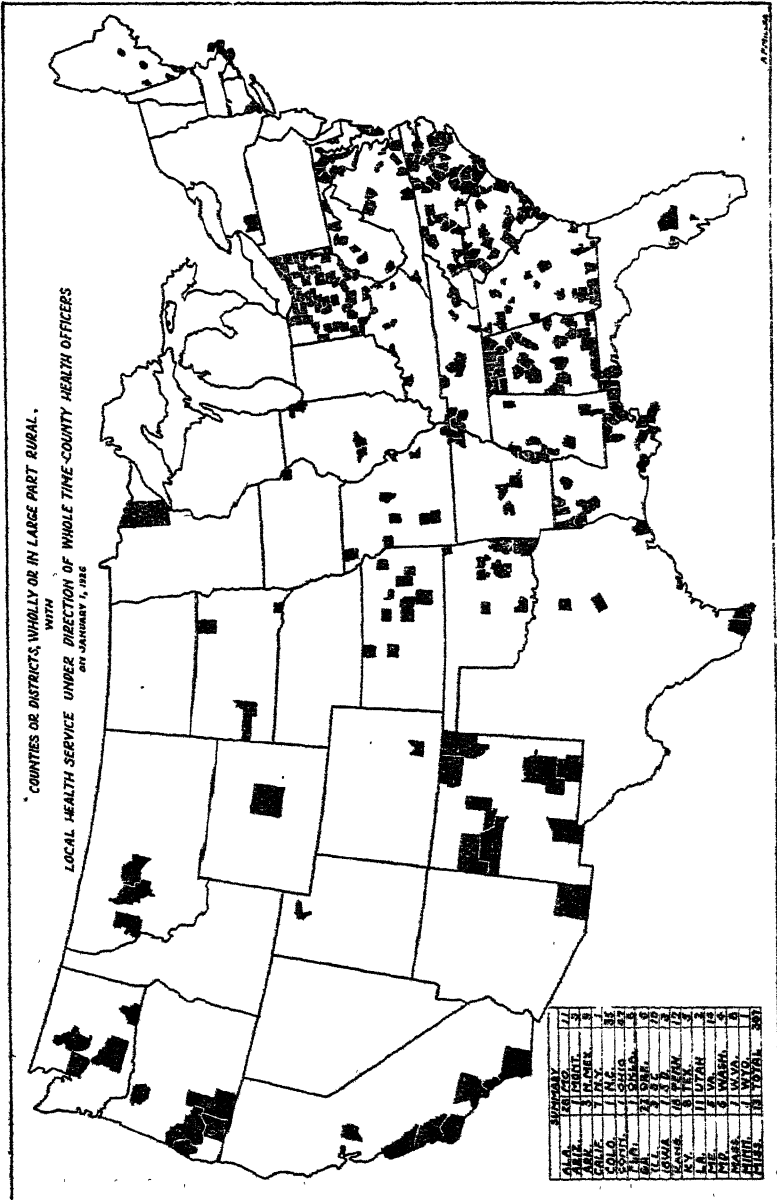
*Résumé of table 1*

State	Number of counties Jan 1—					Increase or decrease in 1922	Increase or decrease in 1923	Increase or decrease in 1924	Increase or decrease in 1925
	1922	1923	1924	1925	1926				
Alabama.....	18	19	22	24	28	+1	+3	+2	+4
Arizona.....	0	0	0	1	1			+1	
Arkansas.....	0	0	0	0	3				+3
California.....	1	4	5	6	7	+3	+1	+1	+1
Colorado.....	0	0	0	0	1				+1
Connecticut.....	0	0	0	1	1			+1	
Florida.....	0	0	0	0	1				+1
Georgia.....	18	18	19	21	22		+1	+2	+1
Idaho.....	3	0	0	0	0	-3			
Illinois.....	0	1	1	4	3	+1		+3	-1
Indiana.....	0	1	0	0	0	+1	-1		
Iowa.....	1	1	2	2	1		+1		-1
Kansas.....	8	8	8	6	10			-2	+4
Kentucky.....	8	8	9	8	8		+1	-1	
Louisiana.....	7	7	10	9	11		+3	-1	+2
Maine.....	0	5	5	5	5	+5			
Maryland.....	1	2	3	6	6	+1	+1	+3	
Massachusetts.....	1	1	1	1	1				
Minnesota.....	0	0	1	1	1		+1		
Mississippi.....	9	12	10	11	13	+3	-2	+1	+2
Missouri.....	2	11	9	9	11	+9	-2		+2
Montana.....	4	4	3	3	3		-1		
New Mexico.....	7	8	10	10	9	+1	+2		-1
New York.....	0	0	1	1	1		+1		
North Carolina.....	29	29	33	35	35		+4	+2	
Ohio.....	40	42	45	47	47	+2	+3	+2	
Oklahoma.....	1	1	1	5	3			+4	+3
Oregon.....	0	1	1	5	3	+1		+4	
South Carolina.....	7	7	9	14	16		+2	+5	+2
South Dakota.....	1	1	1	3	3			+2	
Tennessee.....	4	5	8	9	12	+1	+3	+1	+3
Texas.....	5	6	6	4	5	+1		-2	+1
Utah.....	1	1	1	2	2			+1	
Vermont.....	10	10	0	0	0		-10		
Virginia.....	9	9	14	13	14		+5	-1	+1
Washington.....	4	4	5	5	4		+1		-1
West Virginia.....	3	4	6	8	8	+1	+2	+2	
Wyoming.....	0	0	1	1	1		+1		
Total.....	302	280	280	280	307	+23	+20	+30	+27

The accompanying map shows the counties or districts in the United States in which, as of January 1, 1926, the rural sections were provided with local health service under whole-time local (county or district) health officers.

The net gain of 27 counties in 1925 is cause for encouragement to all persons interested in this much-needed, economical and effective development for the conservation and promotion of the health of the people of the United States. Most of the increases during the year were made in States in which the respective State health departments, with the cooperation of the United States Public Health Service or the International Health Board, or both, were enabled to give encouragement, technical advice, and financial assistance to county or district health departments.

Of the 307 counties or districts with local health service under whole-time local (county or district) health officers at the beginning of the present calendar year, 280, or 91 per cent, are receiving financial assistance for the support of their local health service from one or more of the following agencies: The State board of health, the United States Public Health Service, the International Health Board, the Childrens' Bureau of the United States Department of Labor.



Without moral support and financial assistance from outside sources, local governments of rural communities (counties, towns, townships, or districts) evidently are not disposed to appropriate adequately for the support of efficient, whole-time, local health service. As health conditions in a rural community in one State materially influence those in other communities in that State and in other States, it seems not illogical that the local authorities should think, as many do, that the State and the Federal Government should participate in the development and maintenance of efficient, economical, official, local health service.

At the rate of progress made since 1920, it will take about 85 years for whole-time rural health service to be extended to all communities of the United States in which such service is needed.

Experience indicates that the proper foundation for rural health service in the United States is the county health department under the direction of the qualified whole-time county health officer. It becomes more and more evident to those with practical experience in the public health field that agencies concerned with the promotion of specialized health activities, such as typhoid fever prevention, hookworm control, tuberculosis prevention, malaria control, venereal disease prevention, or child and maternity hygiene, can perform most effectively and economically by dovetailing their specific activities in with and making them a part of a well-balanced, comprehensive program of local official health service under the immediate direction of qualified, whole-time local health officers.

The present budgets for the support of the health service covering the rural communities and some of the incorporated cities and towns in the counties and districts designated in the 1926 column of Table 1 total \$4,333,298.77. Of the total local population receiving this service, 3,884,193, or 32.7 per cent, are urban. Therefore, about \$2,916,000 of the total investment for the local health service in these 307 projects will be expended this year for strictly rural health service.

Reasonably adequate whole-time rural health service throughout this country would cost about \$20,000,000 a year, and, based on the value of a human life when lost unnecessarily, the cost of preventable illness and the loss of earnings due to the same cause, would effect a saving to the people of over \$1,000,000,000, or a net saving every year of over \$980,000,000.

Table 2 presents, by States, the percentage of rural population having local health service under the direction of whole-time local (county or district) health officers at the beginning of 1926.

TABLE 2.—Percentage of rural population having, on January 1, 1926, local health service under whole-time local (county or district) health officers

State	Rural population. (Census 1920)	Rural population with local health service under direction of whole-time health officers	Percentage of rural population with local health service under direction of whole-time health officers
Alabama.....	1,838,857	916,715	49.85
Arizona.....	216,635	27,344	12.62
Arkansas.....	1,461,707	85,414	5.84
California.....	1,095,132	237,592	26.26
Colorado.....	486,370	13,913	2.86
Connecticut.....	444,292	11,475	2.59
Delaware.....	102,236	0	0
Florida.....	612,645	27,306	4.47
Georgia.....	2,167,973	409,934	19.00
Idaho.....	312,829	0	0
Illinois.....	2,082,127	141,587	6.95
Indiana.....	1,447,535	0	0
Iowa.....	1,528,526	19,121	1.25
Kansas.....	1,151,293	152,797	13.27
Kentucky.....	1,783,087	142,948	8.01
Louisiana.....	1,170,346	238,983	22.12
Maine.....	468,445	25,631	5.47
Maryland.....	580,239	225,038	38.78
Massachusetts.....	202,108	16,562	8.19
Michigan.....	1,426,852	0	0
Minnesota.....	1,335,532	50,898	3.81
Mississippi.....	1,550,497	307,881	19.85
Missouri.....	1,817,152	308,858	16.99
Montana.....	376,878	32,711	8.67
Nebraska.....	891,066	0	0
Nevada.....	62,153	0	0
New Hampshire.....	163,322	0	0
New Jersey.....	680,964	0	0
New Mexico.....	285,390	105,321	35.72
New York.....	1,735,333	30,708	2.21
North Carolina.....	2,068,733	975,913	47.17
North Dakota.....	558,683	0	0
Ohio.....	2,082,238	1,269,558	60.97
Oklahoma.....	1,438,803	245,618	16.99
Oregon.....	392,370	80,896	20.61
Pennsylvania.....	3,112,202	0	0
Rhode Island.....	15,217	0	0
South Carolina.....	1,389,737	591,180	42.53
South Dakota.....	534,675	32,124	6.00
Tennessee.....	1,726,639	340,535	19.72
Texas.....	3,150,539	136,031	4.31
Utah.....	233,812	22,109	9.45
Vermont.....	242,452	0	0
Virginia.....	1,635,203	319,849	19.56
Washington.....	607,886	136,166	20.75
West Virginia.....	1,094,694	205,427	18.76
Wisconsin.....	1,387,499	0	0
Wyoming.....	137,054	3,183	2.32
Total.....	51,406,017	7,969,923	15.50

The fact that over 84 per cent of our rural population is as yet unprovided with official local health service approaching adequacy is of portentous seriousness. It means that we are permitting a sacrifice of the health and lives and the material resources of many of our people every year—a sacrifice which is needless because preventable and preventable by measures readily within our means and demonstrated to be in the highest sense economical. It clearly deserves the prompt and vigorous attention of all who are genuinely interested in our national welfare.

## PUBLIC HEALTH ENGINEERING ABSTRACTS

**Simple Large-Scale Incineration in the Tropics.** A. L. Otway. *Journal of the Royal Army Medical Corps*, vol. 46, No. 2, February, 1926, pp. 120-129. (Abstracted by R. C. Beckett.)

Incinerators were constructed out of "swish," a form of African red earth, which, after being dampened and puddled, sets like a terra cotta brick of loose texture and is used by the native population for making houses and fish ovens.

Plans of incinerator units are given, each unit being 3 feet in diameter and 50 inches high, with 9-inch walls. Inside removable forms are used. Two holes at the bottom of the incinerator serve for ventilation. Iron bars 4 inches apart are set 1 foot above the ground into side walls when the first layer of "swish" is laid. Additional layers are added until full height of incinerator is reached.

Thirty such incinerators, operated by 15 native boys, burn 36 one-ton truck loads. Each boy operates two incinerators and one "house," which is a storage bin made of thatch with a "swish" floor. Five barrow boys wheel the ashes to the field and one boy spreads the edges. One man supervises the natives.

The utility of the "swish" incinerator is its cheapness and particularly its mobility. Units can be constructed adjacent to the edge of the ash field and moved when necessary or new ones constructed.

The cost per annum for operating these units is \$1,800.

**Progress of Sewage Disposal Program at Chicago.**—I. Edward J. Kelly, chief engineer of the Sanitary District of Chicago. *Engineering News-Record*, vol. 96, No. 9, March 4, 1926, pp. 363-366. (Abstracted by C. C. Ruchhoft.)

The progress in carrying out an engineering program suggested by 28 consultants is indicated. Following years of litigation, permit to divert an annual average of 8,500 second-feet of water from Lake Michigan for five years was granted to the sanitary district on March 3, 1925, by the Secretary of War. This permit was granted on the condition that sewage works to provide 100 per cent treatment of the waste of 1,200,000 people be completed in that time.

The Sanitary District of Chicago includes the city of Chicago and 49 cities and villages in the neighborhood, with a total area of 437.39 square miles. The present population of the district is 3,355,000, with an additional industrial waste equivalent of 1,600,000. The capacity of the entire dilution system of sewage disposal is at present outgrown, and will be exceeded by 126 per cent by 1945, at which time the total equivalent population will be 6,785,000.

Extensive studies of artificial sewage disposal have been made since 1908. Experiments with domestic sewage, stockyards waste,

tanning-industry wastes, and corn-products wastes have been carried on in testing stations operated for several years each. These studies have cost over \$500,000 to date, and resulted in a definite program for the treatment of wastes in very large quantities.

The six major projects of the district are as follows:

1. The Des Plaines River Sewage Treatment Project, which is in part an experimental activated sludge plant, has been operating since 1922. It will provide for a population of 105,000 by 1945. The cost to date has been \$3,270,000, while future additions will cost \$570,000.

2. The Calumet Project, consisting of Imhoff tanks, activated sludge units, trickling filter units, pumping stations, power plant, and tributary sewers, is now completed. Large-scale experiments have been made at this plant treating the domestic sewage of a population of 192,500. The project was built at war prices under unfavorable labor conditions and cost \$17,360,000. Future extensions, with the addition of trickling filters, will cost \$5,061,000.

3. The North Side Project, which will serve an area of 62 square miles, with an estimated population of 1,450,000 by 1960, is now under construction. This will be the largest activated sludge plant ever built. It will be completed in 1928, and will cost \$27,433,000, including the cost of the collecting sewerage system.

4. The West Side Project, which will serve an area of 57.5 square miles, with a present population of 1,365,000, will include Imhoff tanks and sludge drying beds. Additional sludge digestion chambers, with a capacity to receive the sludge from both the north and west side plants and an 18-mile sludge line from the north side plant, are being considered. The entire project is to cost \$25,261,000, and is to be completed in 1930.

5. The fifth major project includes the treatment of wastes from the corn-products industry, the Stock Yards, and Packing Town. The plan contemplates fine screening at the Stock Yards and further treatment at the southwest side treatment works. Trickling filters are to be built at Argo to treat the corn-products wastes.

6. The Southwest Side Project, serving an area of 59 square miles, with an estimated population of 1,322,000 by 1945, contemplates the construction of activated sludge units or trickling filters supplementary to sedimentation tanks. The project is scheduled for 1940, at an estimated cost of \$19,115,000.

The program also includes a number of disposal plants for the 49 outlying towns located to obtain economical solutions for these problems. Complete treatment at a cost of \$11,786,000 is planned.

**Governor's Commission Solves the Milk Controversy.**—Anon. *Illinois Health News*, vol. 12, No. 2, February, 1926, pp. 48-51. (Abstracted by I. W. Mendelsohn.)

The report in full of the commission appointed to consider the milk situation in Chicago and the Chicago Dairy District of Illinois presents a plan for tuberculin testing and eradication of tuberculosis and Pasteurization which was approved and is now being carried out. The following is among the provisions of this plan: "The program of proper Pasteurization is essential and it and tuberculosis eradication should go forward together."

The committee recommends the following:

(a) The extension of Pasteurization to the entire milk supply of all cities of 10,000 or over.

(b) The investigation to determine the feasibility of Pasteurization of the milk supplies of cities between 2,000 and 10,000 inhabitants.

(c) The promotion of home Pasteurization on the farm and in towns or villages with less than 2,000 inhabitants.

(d) The laws and ordinances of the State and cities of the State should be so extended as to promote proper Pasteurization in those places where the process is not now properly done.

The promotion by all means possible of Pasteurization of all skim milk, buttermilk, and whey used as feed for calves, hogs, chickens, and human beings as a measure of complete tuberculosis eradication.

To continue a committee to act as an advisory board to those legally in charge of the operation of the tuberculosis-eradication laws of the State and Federal Governments, to assist in the carrying out of this agreement, and to advise with producers, distributors, and consumers for the purpose of expediting the eradication of tuberculosis in Illinois.

## DEATH RATES IN A GROUP OF INSURED PERSONS

RATES FOR PRINCIPAL CAUSES OF DEATH FOR JANUARY, 1926—PER CENT OF DISBURSEMENTS ON ACCOUNT OF SPECIFIED IMPORTANT CAUSES, 1925

The accompanying tables are taken from the Statistical Bulletin for February, 1926, published by the Metropolitan Life Insurance Co., and present the mortality experience of the industrial insurance department of the company for January, 1926, as compared with January, December, and year 1925, and the percentage of the 1925 disbursements made on account of specific causes of death. The rates are based on a strength of approximately 17,000,000 insured persons.

Health conditions in this group were a little less favorable in January, 1926, than in the same month last year, as indicated by the slight rise in the death rate from 9.7 per thousand in January, 1925, to 9.8 in 1926. These rates may be compared with 10 in 1924, 10.7 in 1923, 9.7 in 1922 and 1921, and 10.4 in 1920.



The slight rise as compared with January of last year is attributed largely to an 8 per cent increase in the death rate for pneumonia. Increases were also recorded for influenza, Bright's disease, suicides, homicides, and automobile accidents.

There was also a considerable increase in mortality from measles, the rate being 9.5 per 100,000 in January, 1926, as compared with 2.3 per 100,000 in 1925.

The death rate for automobile accidents, 13.6 per 100,000, shows an increase of 21.4 per cent over the rate for January, 1925, which was 11.2 per 100,000.

*Death rates (annual basis) for principal causes per 100,000 lives exposed, January, 1926, and January, December, and year, 1925*

[Industrial department, Metropolitan Life Insurance Co.]

Cause of death	Rate per 100,000 lives exposed <sup>1</sup>			
	January, 1926	December, 1925	January, 1925	Year 1925 <sup>2</sup>
Total, all causes.....	981.2	893.9	970.9	908.9
Typhoid fever.....	3.9	4.4	4.4	4.6
Measles.....	9.5	4.4	2.3	3.3
Scarlet fever.....	4.0	3.2	5.2	3.5
Whooping cough.....	6.6	4.3	5.2	7.7
Diphtheria.....	11.2	11.3	16.1	10.6
Influenza.....	27.1	19.8	25.6	21.9
Tuberculosis (all forms).....	91.0	90.2	97.9	98.0
Tuberculosis of respiratory system.....	81.4	81.4	86.4	85.8
Cancer.....	69.7	72.1	72.0	70.5
Diabetes mellitus.....	17.6	16.4	19.5	15.2
Cerebral hemorrhage.....	60.0	55.1	59.6	53.5
Organic diseases of heart.....	147.0	133.2	145.9	126.6
Pneumonia (all forms).....	138.0	101.4	127.8	86.5
Other respiratory diseases.....	15.9	15.6	17.1	13.3
Diarrhea and enteritis.....	17.0	19.3	17.3	36.6
Bright's disease (chronic nephritis).....	74.8	72.5	71.7	69.8
Puerperal state.....	14.3	13.1	14.7	16.5
Suicides.....	7.5	6.1	5.8	6.9
Homicides.....	7.2	6.6	6.7	7.2
Other external causes (excluding suicides and homicides).....	59.2	54.7	60.3	64.2
Traumatism by automobiles.....	13.6	15.3	11.2	16.5
All other causes.....	199.6	193.2	195.7	190.5

<sup>1</sup> All figures include infants insured under 1 year of age.

<sup>2</sup> Based on provisional estimate of lives exposed to risk in 1925.

#### PERCENTAGE OF DISBURSEMENTS FOR PRINCIPAL CAUSES OF DEATH IN 1925

The following table shows the percentages of the total amount of death claims in 1925 paid on account of deaths from specified diseases and conditions.

Diseases of the heart were responsible for larger claim disbursements than any other cause. This is the second successive year in which the amount paid for deaths from cardiac disease has exceeded that for tuberculosis, which, up to and including 1923, was the leading cause of death from the standpoint of death-claim disbursements. The combined death claims from heart disease, cerebral hemorrhage,

and chronic nephritis—the three principal cardiovascular-renal conditions—amounted to 26.2 per cent of the total sum disbursed. It is remarked that, as these diseases are not as amenable to control as the infectious diseases, this high ratio is likely to increase from year to year.

Tuberculosis was the cause of one-ninth of the total death claims paid to beneficiaries. In 1924 tuberculosis claims amounted to one-eighth of the total.

Disease or condition	Per cent of total	
	1925	1925
All causes of death.....	100.0	100.0
Diseases of the heart.....	13.5	13.5
Tuberculosis (all forms).....	11.2	12.3
Tuberculosis of respiratory system.....	10.2	11.4
Influenza and pneumonia.....	9.9	9.5
Influenza.....	2.3	1.7
Pneumonia (all forms).....	7.6	7.7
Cancer (all forms).....	9.5	9.4
Chronic nephritis.....	7.7	7.0
Cerebral hemorrhage (apoplexy).....	5.7	6.6
Puerperal state.....	1.6	1.7
Typhoid fever.....	.7	.7
Total external causes.....	12.3	12.3
Suicides.....	2.0	2.1
Homicides.....	1.1	1.2
Accidents.....	9.2	9.0
Accidental drowning.....	.9	.9
Traumatism by fall.....	1.0	1.1
Railroad accidents.....	1.0	.9
Automobile accidents.....	2.4	1.9
Other accidents.....	3.9	4.2
All other causes of death.....	28.0	26.9

## COURT DECISIONS RELATING TO PUBLIC HEALTH

*Rules of city board of education for prevention of communicable diseases in schools upheld.*—(Minnesota Supreme Court; *Stone v. Probst et al.*, 206 N. W. 642; decided December 24, 1925.) Chapter 18 of the charter of the city of Minneapolis provided, among other things, that "It [the city board of education] shall have the entire control and management of all the common schools within the city \* \* \* and make rules and regulations for the government of the schools." The board of education adopted rules which, among other things, required that principals and teachers be on the alert to discover suspected contagious diseases, filth, or vermin, and physical and mental defects. Medical examination was not made against conscientious objection, but where such examination was necessary for the protection of the health of other children the child was excluded until it presented the same evidence required of other children who were excluded because of infectious disease.

The plaintiff's daughter was excluded from school because of illness with a throat infection. She was entitled to return upon furnishing

the school authorities with a negative report from a throat culture submitted to the city public health authorities and upon presenting a certificate from a physician as to the condition of her throat or submitting to a physical examination by the regularly employed school physicians or nurses. Refusal to comply with the conditions was based upon conscientious objections incident to being a Christian Scientist. The plaintiff sought a writ of mandamus to compel the admittance of his daughter, but the lower court dismissed the action. On appeal the supreme court held that the language of the charter by fair implication conferred upon the board of education the power to make and enforce the rules involved, and that the rules were made in good faith and were not unfair, arbitrary, or unreasonable, and hence could not be disturbed by the courts. The following is a portion of the court's opinion:

\* \* \* This controversy arises from a sore throat. The teacher could not be expected to determine if it was ordinary, or streptococcic, or the early stage of some other contagious or infectious children's disease. We must recognize that one child may quickly spread a disease among the many children it comes in contact with in school. It seems more reasonable to us to have the rules applicable in preventing as well as in controlling an epidemic. The court should not attempt to substitute its judgment as to what the rules should be, when operative, or the period of operation. In fact, these rules do not really exclude any one except by his own volition. The record in this case merely placed before plaintiff a condition to his child's admission to the school. The condition required is a certificate of a physician, and, in case of sore throat or suspected diphtheria, a negative report from a culture submitted to the division of public health. The school furnishes facilities for acquiring the necessary information if the child will submit to medical examination by the school authorities. Many of us may have to subordinate our own ideas or views to governmental authority, and the requirement calls for cooperation without requiring anyone to surrender his own views or conscientious objection thereto. The child is required to remain away if he will not submit to the rule. The board asks only for such information as it deems necessary in the proper administration of the schools. This information would result in exclusion only in the event that the child himself was a menace to his associates. The board provides a way for the child to qualify for admission without any cost or expense. The matter is entirely in his own hands.

*City board of health estopped to refuse license for chicken abattoir.*—(New Jersey Supreme Court; *Garber v. Board of Health of City of Paterson et al.*, 131 A. 638; decided January 21, 1926.) The relator made application to the board of health of the city of Paterson for a license to operate a chicken abattoir at a designated location in the city. At a meeting of the board a motion was carried that the license be granted upon the completion of the construction of the building, provided such construction was in conformity with plans as submitted to the health director. The relator proceeded with his repairs and improvements under the inspection of a health officer and obtained from time to time the necessary certificates that the

work was properly done and according to regulations. Large sums were expended by him and finally the building was completed. The relator then appeared at a meeting of the board of health with his certificates, ready to take and pay for his license. The board then adopted a motion refusing the license, whereupon the relator sought by mandamus to compel the issuance of such license to him. The court decided that there had been a definite grant of the license, subject merely to the condition subsequent that the relator should put the premises in such condition as to satisfy the regulations of the board of health relating to chicken abattoirs, and held that, the relator having complied with the condition imposed, the board had estopped itself from later denying such license. The court also held that an ordinance prohibiting any chicken abattoir at any place "not heretofore licensed, unless the applicants show that it is not within 50 feet of any building used wholly or in part as a dwelling," which said ordinance was passed by the board between the dates of the conditional grant of the license and the attempted refusal thereof, was not controlling on the relator or on the board with reference to the relator's license.

*City held liable for injury caused by sewage pollution of stream.*—(Oklahoma Supreme Court; *City of Collinsville v. Brickey*, 242 P. 249; decided November 3, 1925.) The plaintiff in the lower court brought action against the city of Collinsville to recover damages for injury to her dairy business caused by the pollution of a stream running through her property, such pollution being due to the discharge of sewage from the city into the stream. The jury returned a verdict in favor of the plaintiff and the judgment on the verdict was affirmed by the supreme court.

## CIVIL SERVICE EXAMINATION FOR ASSISTANT STATISTICIAN

The United States Civil Service Commission announces an open competitive examination for assistant statistician (public health) to fill vacancies in the United States Public Health Service, for duty in Washington, D. C., and in the field.

The entrance salary for this position in the District of Columbia is \$2,400 a year. After the probational period required by the civil service act and rules, advancement in pay without material change in duties may be made to higher rates within the pay range for the grade up to a maximum of \$3,000 a year. Promotion to higher grades may be made in accordance with the civil service rules as vacancies occur.

The duties, under general supervision, are to plan and carry out minor statistical investigations involving the use of technical statistical methods and a general knowledge of the epidemiology and the etiology of the more common diseases of man.

Competitors will be rated on their education and experience, and writings to be filed with the application.

Receipt of applications for this position will close June 8, 1926.

Full information and application blanks may be obtained from the United States Civil Service Commission, Washington, D. C., or the secretary of the board of United States civil service examiners at the post office or customhouse in any city.

## DEATHS DURING WEEK ENDED APRIL 24, 1926

*Summary of information received by telegraph from industrial insurance companies for week ended April 24, 1926, and corresponding week of 1925. (From the Weekly Health Index, April 27, 1926, issued by the Bureau of the Census, Department of Commerce)*

	Week ended Apr. 24, 1926	Corresponding week 1925
Policies in force.....	64, 125, 650	59, 553, 173
Number of death claims.....	14, 073	12, 989
Death claims per 1,000 policies in force, annual rate..	11. 4	11. 4

*Deaths from all causes in certain large cities of the United States during the week ended April 24, 1926, infant mortality, annual death rate, and comparison with corresponding week of 1925. (From the Weekly Health Index, April 27, 1926, issued by the Bureau of the Census, Department of Commerce)*

City	Week ended Apr. 24, 1926		Annual death rate per 1,000 cor- respond- ing week 1925	Deaths under 1 year		Infant mortality rate, week ended Apr. 27, 1926 <sup>1</sup>
	Total deaths	Death rate <sup>1</sup>		Week ended Apr. 27, 1926	Corre- sponding week, 1925	
Total (68 cities).....	8, 594	15. 5	14. 6	1, 009	1, 006	84
Albany <sup>2</sup> .....	42	18. 6	17. 3	1	3	21
Atlanta.....	71			12	8	
White.....	39			6		
Colored.....	32	( <sup>3</sup> )		6		
Baltimore <sup>4</sup> .....	262	17. 3	15. 5	28	24	82
White.....	194			21		75
Colored.....	68	( <sup>3</sup> )		7		114
Birmingham.....	75	19. 0	16. 5	8	9	
White.....	28			3		
Colored.....	47	( <sup>3</sup> )		5		
Boston.....	275	18. 4	16. 1	34	24	96
Bridgeport.....	38			9	3	153
Buffalo.....	174	16. 9	18. 7	23	27	96
Cambridge.....	35	15. 3	17. 0	6	4	100
Camden.....	50	20. 3	21. 1	6	9	101
Chicago <sup>4</sup> .....	715	12. 4	13. 6	91	110	81
Cincinnati.....	165	21. 0	19. 4	17	7	106
Cleveland.....	245	13. 6	12. 5	32	20	83
Columbus.....	78	14. 5	13. 6	4	5	37
Dallas.....	56	15. 1	12. 9	5	7	
White.....	47			3		
Colored.....	9	( <sup>3</sup> )		2		
Denver.....	69	12. 8	16. 9	6	8	
Des Moines.....	41	14. 3	16. 4	4	8	67
Detroit.....	471	19. 7	12. 5	70	70	113
Duluth.....	21	3. 9	12. 3	4	2	94
El Paso.....	43	21. 4	22. 9	7	14	
Erie.....	31			5	4	95
Fall River <sup>4</sup> .....	71	28. 7	15. 4	14	6	203
Flint.....	29	11. 6	8. 0	5	5	83

<sup>1</sup> Annual rate per 1,000 population.

<sup>2</sup> Deaths under 1 year per 1,000 births. Cities left blank are not in the registration area for births.

<sup>3</sup> Data for 62 cities.

<sup>4</sup> Deaths for week ended Friday, Apr. 23, 1926.

<sup>5</sup> In the cities for which deaths are shown by color, the colored population in 1920 constituted the following percentages of the total population: Atlanta 31, Baltimore 15, Birmingham 39, Dallas 15, Fort Worth 14, Houston 25, Kansas City, Kans., 14, Louisville 17, Memphis 33, Nashville 30, New Orleans 26, Norfolk 38, Richmond 32, and Washington, D. C., 25.

Deaths from all causes in certain large cities of the United States during the week ended April 24, 1926, infant mortality, annual death rate, and comparison with corresponding week of 1925. (From the Weekly Health Index, April 27, 1926, issued by the Bureau of the Census, Department of Commerce)—Continued

City	Week ended Apr. 24, 1926		Annual death rate per 1,000 corresponding week 1925	Deaths under 1 year		Infant mortality rate, week ended Apr. 27, 1925
	Total deaths	Death rate		Week ended Apr. 27, 1926	Corresponding week, 1925	
Fort Worth	12	4.1	13.0	2	5	—
White	9			2		—
Colored	3	( <sup>1</sup> )		0		—
Grand Rapids	50	17.0	15.3	5	6	72
Houston	33	16.8	17.7	10	13	—
White	38			7		—
Colored	15	( <sup>2</sup> )		3		—
Indianapolis	120	17.4	15.5	14	9	102
White	98			9		76
Colored	22			5		275
Jacksonville, Fla.	51	25.4	18.9	6	5	125
White	25			5		105
Colored	26			1		57
Jersey City	82	13.6	12.7	13	9	92
Kansas City, Kans.	42	18.9	13.9	6	5	104
White	33			5		105
Colored	9	( <sup>3</sup> )		1		131
Kansas City, Mo.	118	16.7	16.2	12	14	—
Los Angeles	218			23	27	64
Louisville	104	18.0	14.0	7	8	70
White	81			4		40
Colored	23	( <sup>4</sup> )		3		188
Lowell	38	18.0	12.8	8	2	149
Lynn	19	9.6	7.6	2	1	56
Memphis	81	24.2	19.1	8	6	—
White	39			4		—
Colored	42	( <sup>5</sup> )		4		—
Milwaukee	143	14.9	16.1	22	22	102
Minneapolis	137	16.8	13.2	15	17	83
Nashville	43	16.5	20.7	7	5	—
White	26			4		—
Colored	17	( <sup>6</sup> )		3		—
New Bedford	39	17.0	14.0	3	3	52
New Haven	41	11.9	15.2	2	4	27
New Orleans	134	16.9	21.6	9	29	—
White	73			3		—
Colored	61	( <sup>7</sup> )		6		—
New York	1,731	15.4	14.3	228	192	92
Bronx Borough	199	11.9	11.3	19	21	63
Brooklyn Borough	605	14.3	12.5	102	68	103
Manhattan Borough	685	18.4	19.3	70	86	77
Queens Borough	180	13.1	9.3	30	15	136
Richmond Borough	62	23.4	17.3	7	2	123
Newark, N. J.	127	14.6	13.8	22	21	105
Norfolk	39			1	5	19
White	19			1		30
Colored	20	( <sup>8</sup> )		0		0
Oakland	38	7.8	10.5	2	8	23
Oklahoma City	23			1		—
Omaha	74	18.2	19.2	2	11	21
Paterson	44	16.2	12.1	7	5	122
Philadelphia	366	14.9	12.8	64	51	85
Pittsburgh	203	16.8	17.0	30	33	100
Portland, Oreg.	77	14.2	14.4	5	5	51
Providence	90	17.5	15.6	6	9	50
Richmond	66	18.5	15.1	3	10	38
White	42			2		39
Colored	24	( <sup>9</sup> )		1		35
Rochester	97	16.0	17.4	11	12	88
St. Louis	258	16.4	14.4	21	14	—
St. Paul	74	15.7	16.3	2	10	18
Salt Lake City	26	10.4	11.1	3	3	41
San Antonio	53	14.0	16.1	9	15	—
San Diego	27	13.3	17.7	3	2	63
San Francisco	153	14.3	13.9	10	7	60

<sup>1</sup> Deaths for week ended Friday, Apr. 23, 1926.

<sup>2</sup> In the cities for which deaths are shown by color, the colored population in 1920 constituted the following percentages of the total population: Atlanta 31, Baltimore 15, Birmingham 39, Dallas 15, Fort Worth 14, Houston 25, Kansas City, Kans., 14, Louisville 17, Memphis 38, Nashville 36, New Orleans 20, Norfolk 38, Richmond 32, and Washington, D. C., 25.

*Deaths from all causes in certain large cities of the United States during the week ended April 24, 1926, infant mortality, annual death rate, and comparison with corresponding week of 1925. (From the Weekly Health Index, April 27, 1926, issued by the Bureau of the Census, Department of Commerce)—Continued*

City	Week ended Apr. 24, 1926		Annual death rate per 1,000 corresponding week 1925	Deaths under 1 year		Infant mortality rate, week ended Apr. 27, 1926
	Total deaths	Death rate		Week ended Apr. 27, 1925	Corresponding week, 1925	
Schenectady.....	28	15.7	14.0	3	4	87
Seattle.....	60			4	5	37
Somerville.....	30	15.8	13.2	0	2	0
Spokane.....	21	10.1	13.4	2	2	47
Springfield, Mass.....	38	13.9	13.9	2	1	29
Syracuse.....	49	14.0	14.3	3	11	38
Tacoma.....	22	11.0	14.5	0	1	0
Toledo.....	98	17.8	12.7	6	5	58
Trenton.....	43	19.0	20.5	9	7	150
Utica.....	31	15.9	16.4	0	3	0
Washington, D. C.....	126	13.2	16.8	11	21	63
White.....	76			4		33
Colored.....	50	(5)		7		128
Waterbury.....	29			5	4	107
Wilmington, Del.....	42	17.9	8.5	7	1	164
Worcester.....	65	17.8	9.6	6	4	69
Yonkers.....	24	11.0	8.3	8	1	180
Youngstown.....	44	14.1	9.8	8	7	102

<sup>1</sup> In the cities for which deaths are shown by color, the colored population in 1920 constituted the following percentages of the total population: Atlanta 31, Baltimore 15, Birmingham 30, Dallas 15, Fort Worth 14, Houston 25, Kansas City, Kans. 14, Louisville 17, Memphis 38, Nashville 30, New Orleans 20, Norfolk 38, Richmond 32, and Washington, D. C., 25.

# PREVALENCE OF DISEASE

*No health department, State or local, can effectively prevent or control disease without knowledge of when, where, and under what conditions cases are occurring*

## UNITED STATES

### CURRENT WEEKLY STATE REPORTS\*

These reports are preliminary and the figures are subject to change when later returns are received by the State health officers

#### Reports for Week Ended May 1, 1926

ALABAMA		ARKANSAS—continued	
	Cases		Cases
Cerebrospinal meningitis.....	3	Measles.....	24
Chicken pox.....	47	Mumps.....	23
Diphtheria.....	8	Ophthalmia neonatorum.....	2
Influenza.....	65	Pellagra.....	20
Malaria.....	14	Scarlet fever.....	2
Measles.....	376	Smallpox.....	3
Mumps.....	27	Tuberculosis.....	10
Pellagra.....	12	Typhoid fever.....	4
Pneumonia.....	68	Whooping cough.....	45
Poliomyelitis.....	1		
Scarlet fever.....	12	CALIFORNIA	
Smallpox.....	32	Cerebrospinal meningitis:	
Tetanus.....	2	Long Beach.....	1
Trachoma.....	2	Sacramento.....	1
Tuberculosis.....	43	Chicken pox.....	264
Typhoid fever.....	6	Diphtheria.....	88
Whooping cough.....	40	Influenza.....	15
		Measles.....	370
ARIZONA		Mumps.....	322
Chicken pox.....	10	Poliomyelitis.....	
Diphtheria.....	3	Alhambra.....	2
Influenza.....	11	Los Angeles.....	1
Measles.....	6	Scarlet fever.....	116
Pneumonia.....	1	Smallpox:	
Scarlet fever.....	6	Los Angeles.....	19
Trachoma.....	1	Oakland.....	10
Tuberculosis.....	2	Scattering.....	32
Typhoid fever.....	2	Typhoid fever.....	15
Whooping cough.....	11	Whooping cough.....	62
ARKANSAS		COLORADO	
Chicken pox.....	40	Chicken pox.....	36
Diphtheria.....	2	Diphtheria.....	15
Hookworm disease.....	2	German measles.....	7
Influenza.....	138	Influenza.....	3
Malaria.....	57	Measles.....	30



## Reports for Week Ended May 1, 1926—Continued

COLORADO—continued		GEORGIA	
	Cases		Cases
Mumps.....	1	Chicken pox.....	47
Pneumonia.....	2	Conjunctivitis (acute).....	1
Scarlet fever.....	27	Dengue.....	1
Tuberculosis.....	29	Diphtheria.....	14
Typhoid fever.....	1	Dysentery.....	7
Vincent's angina.....	1	Hookworm disease.....	3
Whooping cough.....	26	Influenza.....	58
		Malaria.....	11
		Measles.....	142
		Mumps.....	10
		Pellagra.....	14
		Pneumonia.....	44
		Scarlet fever.....	6
		Septic sore throat.....	10
		Smallpox.....	23
		Tuberculosis.....	72
		Typhoid fever.....	9
		Whooping cough.....	25
		IDAHO	
		Cerebrospinal meningitis:	
		Blackfoot.....	1
		St. Maries.....	1
		Chicken pox.....	8
		Diphtheria.....	6
		Influenza.....	1
		Measles.....	11
		Mumps.....	19
		Pneumonia.....	4
		Rocky Mountain spotted fever.....	1
		Scarlet fever.....	11
		Smallpox.....	3
		Tuberculosis.....	1
		Typhoid fever.....	7
		Whooping cough.....	14
		ILLINOIS	
		Cerebrospinal meningitis:	
		Boone County.....	1
		Cook County.....	1
		Rock Island County.....	1
		St. Clair County.....	1
		Diphtheria.....	69
		Influenza.....	43
		Lethargic encephalitis:	
		Clay County.....	1
		Cook County.....	1
		Measles.....	1,110
		Pneumonia.....	338
		Poliomyelitis—Richland County.....	1
		Scarlet fever.....	317
		Smallpox.....	29
		Tuberculosis.....	598
		Typhoid fever.....	26
		Whooping cough.....	229
		INDIANA	
		Anthrax—Randolph County.....	1
		Chicken pox.....	37
		Diphtheria.....	15
		Influenza.....	93
		Measles.....	1,352
		Pneumonia.....	13
CONNECTICUT			
Cerebrospinal meningitis.....	1		
Chicken pox.....	44		
Conjunctivitis (infectious).....	1		
Diphtheria.....	19		
Dysentery (bacillary).....	2		
German measles.....	10		
Influenza.....	20		
Lethargic encephalitis.....	1		
Measles.....	726		
Mumps.....	6		
Pneumonia (broncho).....	63		
Pneumonia (lobar).....	69		
Scarlet fever.....	89		
Septic sore throat.....	1		
Tuberculosis (all forms).....	48		
Typhoid fever.....	1		
Whooping cough.....	39		
DELAWARE			
Chicken pox.....	5		
Diphtheria.....	4		
Influenza.....	1		
Measles.....	39		
Pneumonia.....	2		
Scarlet fever.....	12		
Tuberculosis.....	4		
Typhoid fever.....	1		
Whooping cough.....	5		
DISTRICT OF COLUMBIA			
Chicken pox.....	17		
Diphtheria.....	14		
Lethargic encephalitis.....	1		
Measles.....	630		
Pneumonia.....	43		
Scarlet fever.....	39		
Tuberculosis.....	24		
Whooping cough.....	39		
FLORIDA			
Chicken pox.....	47		
Diphtheria.....	54		
Influenza.....	3		
Lethargic encephalitis.....	1		
Measles.....	62		
Mumps.....	33		
Pneumonia.....	5		
Scarlet fever.....	12		
Smallpox.....	79		
Tuberculosis.....	7		
Typhoid fever.....	11		
Typhus fever.....	1		
Whooping cough.....	40		

## Reports for Week Ended May 1, 1926—Continued

INDIANA—continued		MARYLAND—continued	
	Cases		Cases
Poliomyelitis.....	1	Scarlet fever.....	38
Scarlet fever.....	199	Septic sore throat.....	2
Smallpox.....	103	Trachoma.....	1
Tuberculosis.....	43	Tuberculosis.....	53
Typhoid fever.....	1	Typhoid fever.....	5
Whooping cough.....	145	Typhus fever.....	1
		Vincent's angina.....	2
		Whooping cough.....	45
KANSAS		MASSACHUSETTS	
Chicken pox.....	122	Cerebrospinal meningitis.....	3
Diphtheria.....	14	Chicken pox.....	117
Dysentery (amebic).....	1	Conjunctivitis (suppurative).....	7
German measles.....	36	Diphtheria.....	58
Influenza.....	19	Dysentery.....	1
Measles.....	825	German measles.....	405
Mumps.....	23	Influenza.....	27
Pneumonia.....	61	Leprosy.....	1
Scarlet fever.....	65	Lethargic encephalitis.....	3
Smallpox.....	10	Measles.....	859
Tuberculosis.....	60	Mumps.....	117
Typhoid fever.....	3	Ophthalmia neonatorum.....	17
Whooping cough.....	152	Pneumonia (lobar).....	103
		Poliomyelitis.....	1
LOUISIANA		Scarlet fever.....	284
Cerebrospinal meningitis.....	1	Septic sore throat.....	4
Diphtheria.....	9	Trachoma.....	2
Influenza.....	10	Tuberculosis (pulmonary).....	164
Measles.....	13	Tuberculosis (other forms).....	29
Pneumonia.....	23	Typhoid fever.....	6
Scarlet fever.....	23	Whooping cough.....	290
Smallpox.....	14		
Tuberculosis.....	19		
Typhoid fever.....	10		
Whooping cough.....	17		
MAINE		MICHIGAN	
Chicken pox.....	20	Diphtheria.....	60
Diphtheria.....	2	Measles.....	1,476
German measles.....	65	Pneumonia.....	179
Influenza.....	409	Scarlet fever.....	238
Measles.....	316	Smallpox.....	5
Mumps.....	37	Tuberculosis.....	310
Pneumonia.....	37	Typhoid fever.....	9
Poliomyelitis.....	1	Whooping cough.....	147
Scarlet fever.....	15		
Tuberculosis.....	8		
Typhoid fever.....	1		
Vincent's angina.....	1		
Whooping cough.....	35		
MARYLAND <sup>1</sup>		MINNESOTA	
Cerebrospinal meningitis.....	3	Chicken pox.....	85
Chicken pox.....	90	Diphtheria.....	39
Diphtheria.....	17	Influenza.....	3
German measles.....	9	Lethargic encephalitis.....	1
Influenza.....	23	Measles.....	454
Lethargic encephalitis.....	1	Pneumonia.....	4
Measles.....	450	Poliomyelitis.....	1
Mumps.....	203	Scarlet fever.....	237
Paratyphoid fever.....	1	Smallpox.....	5
Pneumonia (broncho).....	65	Tuberculosis.....	108
Pneumonia (lobar).....	47	Typhoid fever.....	1
Poliomyelitis.....	1	Whooping cough.....	12
		MISSISSIPPI	
		Cerebrospinal meningitis.....	1
		Diphtheria.....	6
		Scarlet fever.....	5
		Smallpox.....	4
		Typhoid fever.....	2

<sup>1</sup> Week ended Friday.

## Reports for Week Ended May 1, 1926—Continued

MISSOURI		NEW MEXICO—continued	
	Cases		Cases
Chicken pox.....	64	Measles.....	17
Diphtheria.....	51	Mumps.....	11
Influenza.....	13	Pneumonia.....	8
Malaria.....	2	Scarlet fever.....	6
Measles.....	1,708	Smallpox.....	1
Mumps.....	23	Tuberculosis.....	16
Ophthalmia neonatorum.....	1	Whooping cough.....	38
Pneumonia.....	4		
Rabies.....	8		
Scarlet fever.....	262		
Smallpox.....	9		
Trachoma.....	7		
Tuberculosis.....	67		
Typhoid fever.....	6		
Whooping cough.....	68		
MONTANA		NEW YORK	
		(Exclusive of New York City)	
Chicken pox.....	20	Chicken pox.....	130
Diphtheria.....	3	Diphtheria.....	59
German measles.....	32	Dysentery.....	1
Measles.....	57	German measles.....	309
Mumps.....	6	Influenza.....	91
Rocky Mountain spotted fever—		Lethargic encephalitis.....	3
Hamilton.....	1	Malaria.....	2
Ryegate.....	1	Measles.....	1,708
Sootman.....	1	Mumps.....	137
Scarlet fever.....	37	Ophthalmia neonatorum.....	1
Smallpox.....	1	Pneumonia.....	268
Tuberculosis.....	7	Polioomyelitis.....	2
Whooping cough.....	13	Scarlet fever.....	256
		Septic sore throat.....	1
		Tetanus.....	1
		Typhoid fever.....	3
		Vincent's angina.....	10
		Whooping cough.....	452
NEBRASKA		NORTH CAROLINA	
Chicken pox.....	30	Chicken pox.....	118
Diphtheria.....	2	Diphtheria.....	13
Influenza.....	2	German measles.....	321
Measles.....	90	Measles.....	243
Mumps.....	2	Scarlet fever.....	15
Pneumonia.....	4	Smallpox.....	31
Scarlet fever.....	80	Typhoid fever.....	1
Smallpox.....	25	Whooping cough.....	202
Tuberculosis.....	12		
Typhoid fever.....	1		
Whooping cough.....	42		
NEW JERSEY		OKLAHOMA	
		(Exclusive of Oklahoma City and Tulsa)	
Chicken pox.....	196	Chicken pox.....	14
Diphtheria.....	62	Diphtheria.....	9
Dysentery.....	1	Influenza.....	210
Influenza.....	18	Malaria.....	17
Malaria.....	1	Measles.....	79
Measles.....	2,313	Mumps.....	15
Pneumonia.....	202	Pellagra.....	20
Polioomyelitis.....	1	Scarlet fever.....	32
Scarlet fever.....	183	Smallpox.....	29
Smallpox.....	1	Typhoid fever.....	6
Trichinosis.....	3	Whooping cough.....	30
Typhoid fever.....	6		
Whooping cough.....	90		
NEW MEXICO		OREGON	
Chicken pox.....	19	Cerebrospinal meningitis.....	2
Conjunctivitis.....	1	Chicken pox.....	42
German measles.....	2	Diphtheria.....	15
		Influenza.....	20
		Measles.....	67
		Mumps.....	46
		Pneumonia.....	15
		Rocky Mountain spotted fever.....	4

\* Deaths.

## Reports for Week Ended May 1, 1926—Continued

OREGON—continued		TENNESSEE—continued	
	Cases		Cases
Scarlet fever.....	57	Influenza.....	170
Smallpox.....	16	Malaria.....	9
Trachoma.....	1	Measles.....	349
Tuberculosis.....	10	Mumps.....	7
Typhoid fever.....	4	Pellagra.....	17
Whooping cough.....	44	Pneumonia.....	85
PENNSYLVANIA		Rabies.....	2
Anthrax—Philadelphia.....	1	Scarlet fever.....	14
Cerebrospinal meningitis—Carrick.....	1	Smallpox.....	8
Chicken pox.....	492	Tetanus.....	1
Diphtheria.....	225	Tuberculosis.....	54
German measles.....	113	Typhoid fever.....	6
Impetigo contagiosa.....	13	Whooping cough.....	17
Lethargic encephalitis:		TEXAS	
Allentown.....	1	Anthrax.....	2
Philadelphia.....	2	Chicken pox.....	45
Malaria.....	4	Dengue.....	2
Measles.....	5,595	Diphtheria.....	21
Mumps.....	143	Dysentery.....	2
Ophthalmia neonatorum—Philadelphia.....	2	Influenza.....	120
Pneumonia.....	78	Measles.....	29
Polioomyelitis—Windber.....	2	Mumps.....	72
Rabies.....	1	Pellagra.....	1
Scabies.....	5	Pneumonia.....	14
Scarlet fever.....	639	Scarlet fever.....	12
Smallpox.....	1	Smallpox.....	125
Tuberculosis.....	125	Trachoma.....	1
Typhoid fever.....	25	Tuberculosis.....	15
Whooping cough.....	428	Typhoid fever.....	4
RHODE ISLAND		Whooping cough.....	94
Chicken pox.....	7	UTAH	
Diphtheria.....	6	Chicken pox.....	31
German measles.....	21	Diphtheria.....	12
Influenza.....	4	Measles.....	13
Measles.....	86	Mumps.....	30
Mumps.....	4	Pneumonia.....	1
Pneumonia.....	2	Scarlet fever.....	6
Scarlet fever.....	1	Smallpox.....	3
Septic sore throat.....	1	Tuberculosis.....	1
Tuberculosis.....	8	Typhoid fever.....	2
Whooping cough.....	22	Whooping cough.....	193
SOUTH DAKOTA		VERMONT	
Chicken pox.....	12	Chicken pox.....	26
Diphtheria.....	3	Measles.....	44
Influenza.....	13	Mumps.....	23
Measles.....	112	Polioomyelitis.....	1
Mumps.....	37	Scarlet fever.....	7
Pneumonia.....	13	Whooping cough.....	35
Rocky Mountain spotted fever.....	1	VIRGINIA	
Scarlet fever.....	136	Cerebrospinal meningitis—Wythe County.....	1
Smallpox.....	1	Smallpox—Franklin County.....	15
Tuberculosis.....	5	WASHINGTON	
Whooping cough.....	13	Cerebrospinal meningitis:	
TENNESSEE		Bellingham.....	1
Cerebrospinal meningitis:		King County.....	1
Fentress County.....	1	Spokane.....	1
Hamblen County.....	1	W. hkiakum County.....	1
Nashville.....	2	Chicken pox.....	61
Chicken pox.....	29	Diphtheria.....	19
Diphtheria.....	13		

## Reports for Week Ended May 1, 1926—Continued

WASHINGTON—continued		WISCONSIN—continued	
	Cases		Cases
German measles.....	54	Scatterrag:	
Measles.....	129	Cerebrospinal meningitis.....	3
Mumps.....	67	Chicken pox.....	67
Scarlet fever.....	105	Diphtheria.....	19
Smallpox.....	66	German measles.....	71
Tuberculosis.....	17	Influenza.....	266
Typhoid fever.....	4	Measles.....	692
Whooping cough.....	70	Mumps.....	91
		Pneumonia.....	37
WEST VIRGINIA		Scarlet fever.....	137
Chicken pox.....	25	Smallpox.....	7
Diphtheria.....	8	Tuberculosis.....	19
Influenza.....	129	Typhoid fever.....	6
Measles.....	982	Whooping cough.....	148
Scarlet fever.....	62		
Smallpox.....	8		
Tuberculosis.....	38		
Typhoid fever.....	4		
Whooping cough.....	25		
		WYOMING	
WISCONSIN		Chicken pox.....	24
Milwaukee:		German measles.....	1
Chicken pox.....	88	Influenza.....	4
Diphtheria.....	5	Measles.....	5
German measles.....	7	Mumps.....	5
Influenza.....	8	Pneumonia.....	2
Measles.....	206	Rocky Mountain spotted fever:	
Mumps.....	45	Campbell County.....	1
Pneumonia.....	31	Converse County.....	1
Scarlet fever.....	18	Park County.....	2
Tuberculosis.....	23	Sheridan County.....	1
Whooping cough.....	41	Scarlet fever.....	33
		Tuberculosis.....	1
		Whooping cough.....	14

## Reports for Week Ended April 24, 1926

DISTRICT OF COLUMBIA		NORTH CAROLINA—continued	
	Cases		Cases
Chicken pox.....	25	Typhoid fever.....	6
Diphtheria.....	9	Whooping cough.....	216
Measles.....	585		
Pneumonia.....	33	NORTH DAKOTA	
Scarlet fever.....	21	Chicken pox.....	4
Tuberculosis.....	22	Diphtheria.....	6
Whooping cough.....	29	German measles.....	139
		Impetigo contagiosa.....	1
NORTH CAROLINA		Influenza.....	1
Chicken pox.....	118	Measles.....	63
Diphtheria.....	25	Mumps.....	23
German measles.....	327	Pneumonia.....	12
Measles.....	270	Scarlet fever.....	68
Scarlet fever.....	17	Smallpox.....	2
Septic sore throat.....	1	Trachoma.....	3
Smallpox.....	38	Whooping cough.....	21

## Report for Week Ended April 17, 1926

NORTH CAROLINA		NORTH CAROLINA—continued	
	Cases		Cases
Cerebrospinal meningitis.....	1	Ophthalmia neonatorum.....	2
Chicken pox.....	173	Scarlet fever.....	28
Diphtheria.....	23	Smallpox.....	17
German measles.....	265	Typhoid fever.....	4
Measles.....	310	Whooping cough.....	264

## SUMMARY OF MONTHLY REPORTS FROM STATES

The following summary of monthly State reports is published weekly and covers only those State from which reports are received during the current week.

State	Cerebro-spinal meningitis	Diphtheria	Influenza	Malaria	Measles	Pellagra	Poliomyelitis	Scarlet fever	Smallpox	Typhoid fever
<i>March, 1926</i>										
Delaware.....	1	12	73	0	483		0	42	0	1
Hawaii Territory.....	0	26	82		61		0	0	0	9
Illinois.....	7	356	2,031	4	4,514	1	4	2,050	107	44
Kansas.....	7	71	271	0	2,209	1	2	362	65	10
Maine.....	1	13	393	0	878	0	0	117	0	8
Maryland.....	6	88	1,352	2	4,337	0	1	211	0	20
Massachusetts.....	18	304	1,172	1	5,490	0	5	1,194	0	20
Michigan.....		397	210	0	8,258		3	1,781	30	35
Minnesota.....	2	177	11		1,262		2	1,841	29	15
Mississippi.....	2	82	31,820	2,296	1,434	353	1	32	101	66
Montana.....	8	16	272		79		1	251	45	5
New York.....	28	979	15,081	3	16,627		23	2,032	7	103
Oregon.....	17	77	792		269		0	169	147	7
Rhode Island.....	0	41	453		1,634		0	53	0	1
South Dakota.....	0	19	14		134		0	392	43	11
Vermont.....	0	3			165		0	57	0	1
Virginia.....	8	96	18,335	63	2,140	6	2	341	73	25
Washington.....	38	78	57		272		0	361	424	18
West Virginia.....	0	53	2,018		1,388		0	158	73	26

## PLAGUE ERADICATIVE MEASURES IN LOS ANGELES, CALIF.

The following items were taken from the reports of plague eradication measures from Los Angeles, Calif.:

Week ended Apr. 17, 1926:

Number of rats trapped.....	729
Number of rats found to be plague infected.....	0
Number of squirrels examined.....	764
Number of squirrels found to be plague infected.....	0
Number of mice trapped.....	1,163
Number of mice found to be plague infected.....	0

Date of discovery of last plague-infested rodent. Nov. 6, 1925.

Date of last human case, Jan. 15, 1925.

## GENERAL CURRENT SUMMARY AND WEEKLY REPORTS FROM CITIES

**Diphtheria.**—For the week ended April 17, 1926, 35 States reported 1,005 cases of diphtheria. For the week ended April 18, 1925, the same States reported 1,196 cases of this disease. One hundred and two cities, situated in all parts of the country and having an aggregate population of nearly 30,400,000, reported 640 cases of diphtheria for the week ended April 17, 1926. Last year for the corresponding week they reported 888 cases. The estimated expectancy for these cities was 916 cases. The estimated expectancy is based on the experience of the last nine years, excluding epidemics.

**Measles.**—Thirty-two States reported 17,104 cases of measles for the week ended April 17, 1926, and 4,587 cases of this disease for the week ended April 18, 1925. One hundred and two cities

reported 10,328 cases of measles for the week this year, and 3,239 cases last year.

*Poliomyelitis.*—The health officers of 35 States reported 9 cases of poliomyelitis for the week ended April 17, 1926. The same States reported 8 cases for the week ended April 18, 1925.

*Scarlet fever.*—Scarlet fever was reported for the week as follows: Thirty-five States—this year, 3,614 cases; last year, 3,610 cases; 102 cities—this year, 1,783 cases; last year, 1,887 cases; estimated expectancy, 1,137 cases.

*Smallpox.*—For the week ended April 17, 1926, 35 States reported 784 cases of smallpox. Last year for the corresponding week they reported 634 cases. One hundred and two cities reported smallpox for the week as follows: 1926, 153 cases; 1925, 267 cases; estimated expectancy, 121 cases. Nine deaths from smallpox were reported by these cities for the week this year—at Los Angeles, Calif.

*Typhoid fever.*—Two hundred and ten cases of typhoid fever were reported for the week ended April 17, 1926, by 34 States. For the corresponding week of 1925 the same States reported 204 cases of this disease. One hundred and two cities reported 40 cases of typhoid fever for the week this year and 64 cases for the corresponding week last year. The estimated expectancy for these cities was 49 cases.

*Influenza and pneumonia.*—Deaths from influenza and pneumonia were reported for the week by 95 cities, with a population of nearly 29,700,000, as follows: 1926, 1,679 deaths; 1925, 1,175.

*City reports for week ended April 17, 1926*

The "estimated expectancy" given for diphtheria, poliomyelitis, scarlet fever, smallpox, and typhoid fever is the result of an attempt to ascertain from previous occurrence how many cases of the disease under consideration may be expected to occur during a certain week in the absence of epidemics. It is based on reports to the Public Health Service during the past nine years. It is in most instances the median number of cases reported in the corresponding week of the preceding years. When the reports include several epidemics or when for other reasons the median is unsatisfactory, the epidemic periods are excluded and the estimated expectancy is the mean number of cases reported for the week during nonepidemic years.

If reports have not been received for the full nine years, data are used for as many years as possible, but no year earlier than 1917 is included. In obtaining the estimated expectancy the figures are smoothed when necessary to avoid abrupt deviations from the usual trend. For some of the diseases given in the table the available data were not sufficient to make it practicable to compute the estimated expectancy.

Division, State, and city	Population July 1, 1925, estimated	Chicken pox, cases reported	Diphtheria		Influenza		Measles, cases reported	Mumps, cases reported	Pneumonia, deaths reported
			Cases, estimated expectancy	Cases reported	Cases reported	Deaths reported			
NEW ENGLAND									
Maine:									
Portland.....	75,333	2	1	0	4	0	224	3	7
New Hampshire:									
Concord.....	22,546	0	1	0	0	0	0	0	3
Vermont:									
Barre.....	10,008	0	0	0	0	0	0	0	1
Burlington.....	24,089	0	0	1	0	0	0	0	0

## City reports for week ended April 17, 1926—Continued

Division, State, and city	Population July 1, 1925, estimated	Chicken pox, cases reported	Diphtheria		Influenza		Measles, cases reported	Mumps, cases reported	Pneumonia, deaths reported
			Cases, estimated expectancy	Cases reported	Cases reported	Deaths reported			
NEW ENGLAND—CON.									
Massachusetts:									
Boston.....	779,620	24	54	7	15	4	191	22	45
Fall River.....	128,563	3	3	3	9	3	14	1	10
Springfield.....	142,065	5	3	1	3	2	60	0	0
Worcester.....	190,757	8	4	4	4	1	6	0	20
Rhode Island:									
Pawtucket.....	69,760	1	1	0	0	0	45	0	4
Providence.....	267,918	0	10	2	3	2	100	0	10
Connecticut:									
Bridgeport.....	(1)	1	6	1	11	4	4	0	7
Hartford.....	160,197	7	7	2	6	5	42	0	14
New Haven.....	178,927	19	3	0	3	1	81	1	7
MIDDLE ATLANTIC									
New York:									
Buffalo.....	538,016	22	10	6	0	11	24	0	33
New York.....	5,873,350	118	248	142	151	56	1,824	57	374
Rochester.....	316,786	12	6	13	0	3	199	2	7
Syracuse.....	182,003	4	6	1	1	0	171	24	4
New Jersey:									
Camden.....	128,642	6	4	6	1	1	26	1	5
Newark.....	452,513	10	16	5	4	2	250	4	23
Trenton.....	132,020	1	3	1	1	1	57	5	5
Pennsylvania:									
Philadelphia.....	1,070,364	93	75	59	-----	21	731	15	76
Pittsburgh.....	631,563	40	17	5	-----	24	117	4	48
Reading.....	112,707	5	3	0	-----	0	15	1	3
EAST NORTH CENTRAL									
Ohio:									
Cincinnati.....	409,333	6	8	1	5	13	107	6	20
Cleveland.....	936,435	51	19	25	27	27	134	4	42
Columbus.....	279,836	12	4	3	0	1	507	3	8
Toledo.....	287,390	25	4	2	0	3	186	0	10
Indiana:									
Fort Wayne.....	97,846	9	2	0	0	0	10	0	5
Indianapolis.....	358,819	11	6	2	0	2	367	1	19
South Bend.....	80,091	5	1	2	0	0	17	0	5
Terre Haute.....	71,071	0	1	0	0	1	22	0	1
Illinois:									
Chicago.....	2,095,239	119	93	40	43	17	172	25	94
Peoria.....	81,564	4	1	0	0	0	63	12	2
Springfield.....	63,923	10	0	0	4	4	40	7	2
Michigan:									
Detroit.....	1,245,824	40	47	34	5	17	355	12	84
Flint.....	130,316	9	3	2	2	2	45	0	4
Grand Rapids.....	153,698	2	4	1	2	4	33	0	5
Wisconsin:									
Kenosha.....	50,891	8	1	0	1	0	1	0	2
Madison.....	46,385	3	0	0	0	0	138	0	4
Milwaukee.....	509,192	99	13	15	18	8	177	40	40
Racine.....	67,707	2	2	1	2	2	8	14	6
Superior.....	39,671	0	0	0	0	0	27	0	2
WEST NORTH CENTRAL									
Minnesota:									
Duluth.....	110,502	13	1	0	0	0	10	1	3
Minneapolis.....	425,435	59	15	30	0	5	306	2	16
St. Paul.....	246,001	35	13	32	0	0	46	11	10
Iowa:									
Davenport.....	52,469	0	0	1	0	-----	0	0	-----
Sioux City.....	76,411	4	1	1	0	-----	16	0	-----
Waterloo.....	36,771	1	0	0	0	-----	16	0	-----
Missouri:									
Kansas City.....	367,481	14	7	3	5	5	229	1	13
St. Joseph.....	78,842	-----	1	-----	-----	-----	-----	-----	-----
St. Louis.....	821,543	39	37	53	1	1	772	6	-----
North Dakota:									
Fargo.....	26,403	2	0	1	0	0	78	10	1
Grand Forks.....	14,811	0	1	0	0	-----	1	0	-----

1 No estimate made.



## City reports for week ended April 17, 1926—Continued

Division, State, and city	Population July 1, 1925, estimated	Chick-en pox, cases re-ported	Diphtheria		Influenza		Meas-sles, cases re-ported	Mumps, cases re-ported	Pneu-monia, deaths re-ported
			Cases, esti-mated expect-ancy	Cases re-ported	Cases re-ported	Deaths re-ported			
WEST NORTH CENTRAL—continued									
South Dakota:									
Aberdeen.....	13,036	4	1	5	0	—	29	31	—
Sioux Falls.....	30,127	1	0	0	0	0	8	0	0
Nebraska:									
Lincoln.....	60,941	5	1	0	0	0	0	1	1
Omaha.....	211,768	11	4	1	0	0	29	1	11
Kansas:									
Topeka.....	55,411	16	1	0	0	0	11	0	5
Wichita.....	88,367	7	1	0	0	0	137	0	3
SOUTH ATLANTIC									
Delaware:									
Wilmington.....	122,049	0	2	5	0	2	14	0	7
Maryland:									
Baltimore.....	796,296	70	25	20	19	1	324	240	37
Cumberland.....	33,741	0	0	3	0	0	5	0	2
Frederick.....	12,035	0	0	0	2	0	18	0	0
District of Columbia:									
Washington.....	497,906	24	9	14	2	1	615	0	18
Virginia:									
Lynchburg.....	30,395	9	0	1	0	1	135	3	1
Norfolk.....	(1)	11	1	0	0	0	5	2	6
Richmond.....	186,403	3	2	0	0	0	64	7	6
Roanoke.....	55,208	1	0	0	0	5	146	0	2
West Virginia:									
Charleston.....	49,019	2	0	1	6	3	15	0	0
Huntington.....	63,485	0	0	0	0	3	0	0	5
Wheeling.....	56,208	3	0	1	0	2	112	7	8
North Carolina:									
Raleigh.....	30,371	0	0	0	0	0	0	0	2
Wilmington.....	37,061	17	1	1	0	0	1	1	2
Winston-Salem.....	69,031	6	1	0	0	2	68	6	2
South Carolina:									
Charleston.....	73,125	8	0	1	0	2	24	0	2
Columbia.....	41,225	7	0	0	0	0	0	1	0
Greenville.....	27,311	2	0	0	0	0	3	3	0
Georgia:									
Atlanta.....	(1)	10	2	1	15	1	14	0	9
Brunswick.....	16,809	1	0	0	0	0	0	0	1
Savannah.....	93,134	3	0	0	5	3	2	1	2
Florida:									
St. Petersburg.....	26,847	—	0	—	—	0	—	—	1
Tampa.....	84,743	8	1	0	0	0	2	1	3
EAST SOUTH CENTRAL									
Kentucky:									
Covington.....	58,309	0	2	0	1	1	35	0	10
Louisville.....	305,935	3	4	3	1	2	261	0	23
Tennessee:									
Memphis.....	174,533	25	3	5	0	1	113	6	10
Nashville.....	136,220	1	0	0	0	2	36	0	6
Alabama:									
Birmingham.....	205,670	7	2	0	41	2	85	1	9
Mobile.....	65,955	0	1	1	0	1	0	0	1
Montgomery.....	46,481	17	0	0	2	0	6	32	0
WEST SOUTH CENTRAL									
Arkansas:									
Fort Smith.....	31,643	13	0	0	0	—	4	0	—
Little Rock.....	74,216	0	0	0	0	1	21	1	2
Louisiana:									
New Orleans.....	414,493	3	7	3	4	2	3	0	12
Shreveport.....	57,857	3	0	0	0	0	1	15	2
Oklahoma:									
Oklahoma City.....	(1)	1	1	1	0	0	0	1	6

1 No estimate made.

## City reports for week ended April 17, 1926—Continued

Division, State, and city	Population July 1, 1925, estimated	Chicken pox, cases re-reported	Diphtheria		Influenza		Measles, cases re-reported	Mumps, cases re-reported	Pneumonia, deaths re-reported
			Cases, estimated expectancy	Cases re-reported	Cases re-reported	Deaths re-reported			
WEST SOUTH CENTRAL—contd.									
Texas:									
Dallas.....	194,450	45	3	1	5	6	0	0	4
Galveston.....	48,375	0	0	0	0	0	0	0	2
Houston.....	164,954		2	1	0	0	0		7
San Antonio.....	198,069	1	1	2	0	3	2	0	12
MOUNTAIN									
Montana:									
Billings.....	17,971	1	0	0	1	0	0	1	1
Great Falls.....	29,883	18	0	0	0	0	12	5	1
Helena.....	12,637	0	0	0	0	0	0	0	2
Missoula.....	12,668	1	0	0	0	0	3	0	0
Idaho:									
Boise.....	23,042	2	1	1	0	0	0	0	0
Colorado:									
Denver.....	280,911	45	11	13		5	33	0	8
Pueblo.....	43,787	14	1	2	0	0	6	1	2
New Mexico:									
Albuquerque.....	21,000	1	1	0	0	0	1	6	1
Arizona:									
Phoenix.....	38,669	0	0	0	0	0	1	0	0
Utah:									
Salt Lake City.....	130,948	15	3	5	0	0	4	24	3
Nevada:									
Reno.....	12,605	0	0	0	0	0	0	0	0
PACIFIC									
Washington:									
Seattle.....	(1)	19	5	4	0		28	35	
Spokane.....	108,897	26	3	1	9		0	0	
Tacoma.....	104,455	1	1	3	0	0	6	0	5
Oregon:									
Portland.....	282,383	19	4	11	0	0	36	6	4
California:									
Los Angeles.....	(1)	61	35	32	15	2	18	19	16
Sacramento.....	72,200	5	1	1	1	2	1	5	5
San Francisco.....	557,530	60	21	9	3	2	86	13	7

Division, State, and city	Scarlet fever		Smallpox			Tuber- culosis, deaths re- ported	Typhoid fever			Whoop- ing cough, cases re- ported	Deaths, all causes
	Cases esti- mated expect- ancy	Cases, re- ported	Cases, esti- mated expect- ancy	Cases, re- ported	Deaths re- ported		Cases, esti- mated expect- ancy	Cases, re- ported	Deaths re- ported		
NEW ENGLAND											
Maine:											
Portland.....	4	5	0	0	0	2	0	0	1	15	26
New Hampshire:											
Concord.....	1	7	0	0	0	1	0	1	0	0	25
Vermont:											
Barre.....	0	0	0	0	0	1	0	0	0	0	3
Burlington.....	0	4	0	0	0	1	0	0	0	0	5
Massachusetts:											
Boston.....	62	56	0	0	0	25	1	1	1	143	295
Fall River.....	4	4	0	0	0	3	1	1	0	6	51
Springfield.....	6	1	0	0	0	2	0	0	0	17	31
Worcester.....	10	6	0	0	0	2	1	1	0	13	85
Rhode Island:											
Pawtucket.....	1	0	0	0	0	0	0	0	0	8	23
Providence.....	9	6	0	0	0	6	0	0	0	6	73

1 No estimate made.

## City reports for week ended April 17, 1926—Continued

Division, State, and city	Scarlet fever		Smallpox			Tuber- culosis, deaths re- ported	Typhoid fever			Whoop- ing cough, cases re- ported	Deaths, all causes
	Cases, esti- mated expect- ancy	Cases, re- ported	Cases, esti- mated expect- ancy	Cases, re- ported	Deaths re- ported		Cases, esti- mated expect- ancy	Cases, re- ported	Deaths re- ported		
NEW ENGLAND— continued											
Connecticut:											
Bridgeport.....	7	17	0	0	0	1	0	0	0	7	43
Hartford.....	5	4	0	0	0	3	0	0	0	7	68
New Haven.....	9	22	0	0	0	2	0	0	0	19	52
MIDDLE ATLANTIC											
New York:											
Buffalo.....	21	14	0	0	0	9	1	0	0	51	187
New York.....	252	174	0	1	0	113	10	11	0	92	1,830
Rochester.....	17	6	0	0	0	0	0	0	0	9	90
Syracuse.....	13	1	0	0	0	1	0	0	0	30	42
New Jersey:											
Camden.....	4	4	0	0	0	2	0	0	0	1	37
Newark.....	25	18	0	0	0	8	1	0	0	20	141
Trenton.....	2	8	0	0	0	3	1	0	0	0	32
Pennsylvania:											
Philadelphia.....	76	92	0	0	0	38	3	3	1	22	569
Pittsburgh.....	21	43	1	0	0	16	1	1	0	64	242
Reading.....	4	16	0	0	0	1	0	0	0	8	33
EAST NORTH CENTRAL											
Ohio:											
Cincinnati.....	13	24	2	1	0	13	1	0	0	33	154
Cleveland.....	22	100	1	0	0	21	1	1	0	108	286
Columbus.....	8	22	1	2	0	8	0	0	0	3	83
Toledo.....	15	18	5	0	0	5	1	0	0	27	88
Indiana:											
Fort Wayne.....	3	7	2	0	0	1	0	0	0	2	30
Indianapolis.....	11	17	4	11	0	3	0	0	0	46	122
South Bend.....	4	4	0	1	0	2	0	0	0	13	19
Terre Haute.....	2	6	1	0	0	1	0	0	0	0	25
Illinois:											
Chicago.....	111	125	2	6	0	73	2	0	0	43	763
Peoria.....	2	4	1	0	0	1	0	0	0	18	21
Springfield.....	1	2	0	0	0	0	0	1	0	18	21
Michigan:											
Detroit.....	82	124	2	0	0	17	2	0	0	56	416
Flint.....	6	12	1	0	0	0	0	0	0	24	21
Grand Rapids.....	7	26	1	0	0	1	0	0	0	18	45
Wisconsin:											
Kenosha.....	3	1	0	0	0	0	0	0	0	11	7
Madison.....	4	3	1	0	0	0	0	0	0	4	10
Milwaukee.....	27	10	3	0	0	12	0	1	0	59	156
Racine.....	3	6	1	0	0	0	0	0	0	19	23
Superior.....	2	13	2	0	0	0	0	0	0	0	4
WEST NORTH CENTRAL											
Minnesota:											
Duluth.....	5	27	1	0	0	1	0	0	0	6	36
Minneapolis.....	29	68	8	0	0	5	0	1	0	2	128
St. Paul.....	25	45	5	0	0	4	0	0	0	33	63
Iowa:											
Davenport.....	2	5	3	0	0	0	0	0	0	1	0
Sioux City.....	2	4	1	6	0	0	0	0	0	0	0
Waterloo.....	2	2	0	0	0	0	1	0	0	4	0
Missouri:											
Kansas City.....	11	25	2	0	0	6	1	0	1	27	105
St. Joseph.....	3	0	0	0	0	0	0	0	0	0	0
St. Louis.....	35	206	4	4	0	13	2	1	0	38	232
North Dakota:											
Fargo.....	2	2	1	0	0	0	0	0	0	1	5
Grand Forks.....	0	0	0	0	0	0	0	0	0	0	0
South Dakota:											
Aberdeen.....	1	15	0	0	0	0	0	0	0	2	0
Sioux Falls.....	2	1	1	1	0	0	0	0	0	1	8

<sup>1</sup> Pulmonary tuberculosis only.

## City reports for week ended April 17, 1926—Continued

Division, State, and city	Scarlet fever		Smallpox			Tuber- culosis, deaths re- ported	Typhoid fever			Whoop- ing cough, cases re- ported	Deaths, all causes
	Cases, esti- mated expect- ancy	Cases, re- ported	Cases, esti- mated expect- ancy	Cases, re- ported	Deaths re- ported		Cases, esti- mated expect- ancy	Cases, re- ported	Deaths re- ported		
WEST NORTH CENTRAL—contd.											
Nebraska:											
Lincoln.....	3	8	0	1	0	0	0	0	0	13	16
Omaha.....	3	54	7	11	0	5	0	0	0	1	53
Kansas:											
Topeka.....	4	5	2	0	0	0	0	0	0	0	20
Wichita.....	2	4	3	0	0	0	0	0	0	8	28
SOUTH ATLANTIC											
Delaware:											
Wilmington.....	3	7	0	0	0	5	0	0	0	0	35
Maryland:											
Baltimore.....	33	49	1	0	0	21	2	0	0	41	219
Cumberland.....	0	0	0	0	0	1	0	0	0	2	10
Frederick.....	2	0	0	0	0	0	0	0	0	0	2
District of Col.:											
Washington.....	23	17	2	0	0	14	1	1	0	41	129
Virginia:											
Lynchburg.....	0	1	0	0	0	0	0	0	0	10	11
Norfolk.....	1	3	0	0	0	2	0	0	0	17	—
Richmond.....	2	7	0	0	0	3	0	0	0	6	46
Roanoke.....	0	3	0	2	0	0	1	0	0	3	19
West Virginia:											
Charleston.....	1	0	0	3	0	0	0	0	0	13	22
Huntington.....	0	0	0	0	0	0	0	0	0	0	19
Wheeling.....	2	5	0	2	0	0	0	0	0	0	23
North Carolina:											
Raleigh.....	0	1	0	0	0	1	0	0	0	4	11
Wilmington.....	0	1	0	0	0	2	0	0	0	2	18
Winston-Salem.....	0	0	5	1	0	4	0	0	0	1	23
South Carolina:											
Charleston.....	0	0	0	0	0	2	0	0	0	0	33
Columbia.....	0	0	0	0	0	0	0	0	0	0	—
Greenville.....	0	0	0	0	0	2	0	0	0	2	8
Georgia:											
Atlanta.....	4	3	3	1	0	4	0	0	0	3	80
Brunswick.....	0	0	0	0	0	0	0	0	0	0	4
Savannah.....	1	0	0	2	0	3	0	1	0	0	27
Florida:											
St. Petersburg.....	0	—	0	—	0	0	—	0	—	—	27
Tampa.....	0	0	0	12	0	3	1	0	0	0	34
EAST SOUTH CENTRAL											
Kentucky:											
Covington.....	2	1	1	1	0	3	1	0	0	0	37
Louisville.....	5	5	1	0	0	7	1	0	0	0	101
Tennessee:											
Memphis.....	4	18	3	4	0	4	0	0	0	1	71
Nashville.....	2	2	2	0	0	8	1	0	0	0	54
Alabama:											
Birmingham.....	1	2	9	4	0	7	1	0	0	16	69
Mobile.....	0	0	1	1	0	2	1	0	0	0	19
Montgomery.....	0	1	1	0	0	0	0	0	0	0	12
WEST SOUTH CENTRAL											
Arkansas:											
Fort Smith.....	0	0	0	0	—	—	0	0	—	0	—
Little Rock.....	1	4	0	0	0	3	1	1	0	0	—
Louisiana:											
New Orleans.....	4	20	3	3	0	12	2	2	1	5	132
Shreveport.....	0	2	2	0	0	4	0	2	0	0	26
Oklahoma:											
Oklahoma City.....	2	2	4	0	0	1	0	0	0	0	20
Texas:											
Dallas.....	2	0	1	4	0	5	1	0	0	19	48
Galveston.....	0	1	0	2	0	0	0	0	0	0	14
Houston.....	1	3	1	13	0	2	0	2	0	—	53
San Antonio.....	1	1	0	0	0	12	0	1	0	0	70

## City reports for week ended April 17, 1926—Continued

Division, State, and city	Scarlet fever		Smallpox			Tuber- culosis, deaths re- ported	Typhoid fever			Whoop- ing cough, cases re- ported	Deaths, all causes
	Cases, esti- mated expect- ancy	Cases re- ported	Cases, esti- mated expect- ancy	Cases re- ported	Deaths re- ported		Cases, esti- mated expect- ancy	Cases re- ported	Deaths re- ported		
MOUNTAIN											
Montana:											
Billings.....	0	3	0	0	0	0	0	0	0	0	5
Great Falls.....	1	0	1	0	0	0	0	0	0	14	9
Helena.....	0	0	1	0	0	0	0	0	0	0	5
Missoula.....	1	1	1	0	0	0	1	0	0	0	7
Idaho:											
Boise.....	1	3	0	3	0	0	0	0	0	0	3
Colorado:											
Denver.....	10	10	2	0	0	8	1	0	0	53	79
Pueblo.....	1	1	0	0	0	1	0	0	0	0	11
New Mexico:											
Albuquerque.....	0	2	0	0	0	5	0	0	0	3	12
Arizona:											
Phoenix.....	0	1	-----	0	0	10	-----	0	0	3	22
Utah:											
Salt Lake City.....	3	1	1	0	0	1	0	1	0	82	37
Nevada:											
Reno.....	0	0	0	0	0	0	0	0	0	0	1
PACIFIC											
Washington:											
Seattle.....	8	36	4	3	-----	-----	0	1	-----	7	-----
Spokane.....	3	44	7	0	-----	-----	0	0	-----	7	-----
Tacoma.....	2	2	2	19	0	0	0	0	0	5	27
Oregon:											
Portland.....	6	31	10	6	0	5	1	1	0	2	66
California:											
Los Angeles.....	17	21	3	25	9	31	2	1	0	3	244
Sacramento.....	1	4	0	0	0	2	0	3	0	0	31
San Francisco.....	13	19	3	4	0	13	1	0	0	2	146

Division, State, and city	Cerebrospinal meningitis		Lethargic encephalitis		Pellagra		Poliomyelitis (infantile paralysis)			
	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases, esti- mated expect- ancy	Cases	Deaths	
NEW ENGLAND										
Massachusetts:										
Fall River.....	1	0	0	0	0	0	0	0	0	0
Springfield.....	0	0	1	1	0	0	0	0	0	0
MIDDLE ATLANTIC										
New York:										
Buffalo.....	0	2	0	0	0	0	0	0	0	0
New York.....	5	3	6	7	0	0	0	2	0	0
New Jersey:										
Newark.....	0	0	2	0	0	0	0	0	0	0
Pennsylvania:										
Philadelphia.....	0	0	0	1	0	0	0	0	0	0
Pittsburgh.....	0	0	0	0	0	0	0	0	0	1
EAST NORTH CENTRAL										
Ohio:										
Cleveland.....	0	0	0	1	0	0	0	0	0	0
Columbus.....	0	0	0	1	0	0	0	0	0	0
Illinois:										
Chicago.....	2	1	3	2	0	0	1	0	0	0
Michigan:										
Detroit.....	2	0	1	0	0	0	1	0	0	0

## City reports for week ended April 17, 1926—Continued

Division, State, and city	Cerebrospinal meningitis		Lethargic encephalitis		Pellagra		Poliomyelitis (infantile paralysis)		
	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases, estimated expectancy	Cases	Deaths
SOUTH ATLANTIC									
Delaware:									
Wilmington.....	0	1	0	0	0	0	0	0	0
Maryland:									
Baltimore.....	1	1	0	0	0	0	0	0	0
District of Columbia:									
Washington.....	0	0	0	0	1	1	0	0	0
North Carolina:									
Raleigh.....	0	0	0	0	0	1	0	0	0
Georgia:									
Atlanta.....	0	0	0	0	0	1	0	0	0
Brunswick.....	0	0	0	0	0	1	0	0	0
EAST SOUTH CENTRAL									
Tennessee:									
Memphis.....	1	0	0	0	0	0	0	0	0
Alabama:									
Birmingham.....	0	0	0	0	0	1	0	0	0
WEST SOUTH CENTRAL									
Louisiana:									
New Orleans.....	0	0	0	0	1	0	0	0	0
Shreveport.....	0	0	0	0	0	1	0	0	0
Texas:									
Galveston.....	0	0	0	0	0	1	0	0	0
Houston.....	1	0	0	0	0	1	0	0	0
MOUNTAIN									
Colorado:									
Denver.....	0	0	0	1	0	0	0	0	0
PACIFIC									
Washington:									
Seattle.....	2	0	0	0	0	0	0	0	0
Spokane.....	2	0	0	0	0	0	0	0	0
California:									
Los Angeles.....	2	1	0	0	1	1	0	1	0
Sacramento.....	3	1	0	0	0	0	0	0	0
San Francisco.....	0	0	1	1	0	0	0	0	0

The following table gives the rates per 100,000 population for 103 cities for the five-week period ended April 17, 1926, compared with those for a like period ended April 18, 1925. The population figures used in computing the rates are approximate estimates as of July 1, 1925 and 1926, respectively, authoritative figures for many of the cities not being available. The 103 cities reporting cases had an estimated aggregate population of nearly 30,000,000 in 1925 and nearly 30,500,000 in 1926. The 96 cities reporting deaths had more than 29,250,000 estimated population in 1925 and more than 29,750,000 in 1926. The number of cities included in each group and the estimated aggregate populations are shown in a separate table below.

Summary of weekly reports from cities, March 14 to April 17, 1926—Annual rates per 100,000 population—Compared with rates for the corresponding period of 1925<sup>1</sup>

## DIPHTHERIA CASE RATES

	Week ended—									
	Mar. 21, 1925	Mar. 20, 1926	Mar. 28, 1925	Mar. 27, 1926	Apr. 4, 1925	Apr. 3, 1926	Apr. 11, 1925	Apr. 10, 1926	Apr. 18, 1925	Apr. 17, 1926
103 cities.....	161	<sup>2</sup> 120	<sup>2</sup> 162	<sup>4</sup> 131	170	<sup>5</sup> 126	152	<sup>2</sup> 117	135	<sup>6</sup> 110
New England.....	141	128	115	139	165	80	161	125	125	47
Middle Atlantic.....	196	125	230	142	240	145	219	125	227	118
East North Central.....	125	98	101	101	86	<sup>7</sup> 112	91	88	103	86
West North Central.....	193	144	239	146	213	156	219	200	163	<sup>7</sup> 247
South Atlantic.....	129	69	90	<sup>8</sup> 62	77	96	69	86	96	90
East South Central.....	63	<sup>2</sup> 28	53	<sup>2</sup> 39	21	<sup>2</sup> 61	32	<sup>2</sup> 121	42	47
West South Central.....	192	103	114	155	79	60	101	60	70	30
Mountain.....	139	73	129	255	120	146	102	118	231	191
Pacific.....	237	233	<sup>2</sup> 170	240	356	202	163	137	160	135

## MEASLES CASE RATES

103 cities.....	487	<sup>1</sup> 1,786	<sup>2</sup> 459	<sup>1</sup> 1,837	537	<sup>1</sup> 1,695	510	<sup>2</sup> 1,784	564	<sup>6</sup> 1,772
New England.....	700	1,725	728	1,347	923	1,463	975	1,372	881	1,813
Middle Atlantic.....	595	1,855	630	1,835	731	1,847	677	1,769	811	<sup>1</sup> 1,699
East North Central.....	726	1,991	747	2,088	685	1,503	638	1,570	681	1,469
West North Central.....	90	1,872	86	2,306	74	2,391	56	3,240	88	<sup>6</sup> 3,384
South Atlantic.....	179	2,795	129	<sup>5</sup> 2,750	198	2,671	196	2,652	242	2,943
East South Central.....	63	<sup>2</sup> 2,408	32	<sup>2</sup> 3,096	63	<sup>2</sup> 3,063	32	<sup>2</sup> 3,218	89	2,781
West South Central.....	40	43	9	125	84	43	48	237	62	133
Mountain.....	355	328	37	310	213	555	55	410	256	528
Pacific.....	180	321	<sup>2</sup> 144	453	190	248	229	391	146	375

## SCARLET FEVER CASE RATES

103 cities.....	411	<sup>2</sup> 301	<sup>2</sup> 403	<sup>4</sup> 325	394	<sup>5</sup> 296	353	<sup>2</sup> 274	329	<sup>5</sup> 306
New England.....	525	404	582	355	515	392	510	319	338	373
Middle Atlantic.....	416	202	404	210	434	210	338	176	341	187
East North Central.....	460	340	449	407	412	<sup>7</sup> 331	391	330	376	343
West North Central.....	768	800	731	889	713	774	627	833	631	<sup>6</sup> 504
South Atlantic.....	138	158	157	<sup>8</sup> 156	165	175	144	147	157	182
East South Central.....	263	<sup>2</sup> 154	263	<sup>2</sup> 149	242	<sup>2</sup> 231	257	<sup>2</sup> 176	210	155
West South Central.....	128	138	97	146	48	86	84	116	57	133
Mountain.....	416	246	240	209	268	146	250	100	305	173
Pacific.....	207	280	<sup>2</sup> 211	288	182	251	166	156	138	340

## SMALLPOX CASE RATES

103 cities.....	61	<sup>2</sup> 36	<sup>2</sup> 56	<sup>4</sup> 38	55	<sup>2</sup> 42	49	<sup>2</sup> 33	46	<sup>5</sup> 26
New England.....	0	0	0	0	12	0	2	0	0	0
Middle Atlantic.....	8	0	7	0	21	0	10	0	13	0
East North Central.....	30	26	31	10	22	<sup>7</sup> 17	21	18	25	14
West North Central.....	98	49	131	57	84	46	94	51	82	145
South Atlantic.....	54	60	63	<sup>8</sup> 66	46	41	40	68	50	43
East South Central.....	593	<sup>2</sup> 88	389	<sup>2</sup> 61	378	<sup>2</sup> 105	525	<sup>2</sup> 94	362	52
West South Central.....	101	138	101	142	44	90	48	133	13	95
Mountain.....	65	64	18	27	18	55	18	27	9	27
Pacific.....	202	164	<sup>2</sup> 182	210	248	348	141	137	155	137

<sup>1</sup> The figures given in this table are rates per 100,000 population, annual basis, and not the number of cases reported. Populations used are estimated as of July 1, 1925 and 1926, respectively.

<sup>2</sup> Covington, Ky., not included.

<sup>3</sup> Spokane, Wash., not included.

<sup>4</sup> Norfolk, Va., and Covington, Ky., not included.

<sup>5</sup> Madison, Wis., and Covington, Ky., not included.

<sup>6</sup> St. Joseph, Mo., not included.

<sup>7</sup> Madison, Wis., not included.

<sup>8</sup> Norfolk, Va., not included.

Summary of weekly reports from cities, March 14 to April 17, 1926—Annual rates per 100,000 population—Compared with rates for the corresponding period of 1925—Continued

## TYPHOID FEVER CASE RATES

	Week ended—									
	Mar. 21, 1925	Mar. 20, 1926	Mar. 28, 1925	Mar. 27, 1926	Apr. 4, 1925	Apr. 3, 1926	Apr. 11, 1925	Apr. 10, 1926	Apr. 18, 1925	Apr. 17, 1926
103 cities.....	11	26	10	8	8	10	9	27	11	17
New England.....	29	0	12	0	5	7	2	9	7	9
Middle Atlantic.....	8	4	7	10	4	8	9	5	11	7
East North Central.....	6	3	3	1	3	3	6	3	4	2
West North Central.....	8	2	6	2	2	8	2	10	2	6
South Atlantic.....	21	21	12	16	19	17	19	6	12	4
East South Central.....	42	22	53	17	26	33	16	11	32	0
West South Central.....	22	9	40	9	31	34	35	17	33	34
Mountain.....	0	9	0	0	0	36	18	18	37	0
Pacific.....	0	5	20	13	19	11	8	13	11	13

## INFLUENZA DEATH RATES

96 cities.....	40	76	31	87	33	80	26	74	26	51
New England.....	29	45	29	69	34	109	31	83	26	52
Middle Atlantic.....	29	95	22	111	21	100	16	76	24	59
East North Central.....	46	65	38	104	36	110	25	81	23	67
West North Central.....	40	31	44	38	38	38	36	31	49	64
South Atlantic.....	50	51	12	82	27	58	25	58	10	43
East South Central.....	110	223	79	254	63	99	68	239	74	47
West South Central.....	73	156	34	123	34	109	44	71	10	57
Mountain.....	46	46	37	64	176	27	83	46	37	46
Pacific.....	11	18	47	14	25	21	11	14	23	21

## PNEUMONIA DEATH RATES

96 cities.....	208	372	197	372	197	333	194	277	184	341
New England.....	204	357	211	430	242	468	204	350	199	303
Middle Atlantic.....	216	503	198	493	214	432	189	338	203	288
East North Central.....	208	255	201	351	171	321	178	245	178	232
West North Central.....	167	144	161	139	183	159	220	184	165	134
South Atlantic.....	275	349	232	330	219	289	223	235	217	207
East South Central.....	263	400	247	477	247	353	315	431	189	332
West South Central.....	169	279	160	175	160	198	160	170	92	194
Mountain.....	166	200	194	191	157	135	259	137	203	155
Pacific.....	116	99	142	117	142	77	105	149	87	117

<sup>2</sup> Covington, Ky., not included.

<sup>3</sup> Spokane, Wash., not included.

<sup>4</sup> Norfolk, Va., and Covington, Ky., not included.

<sup>5</sup> Madison, Wis., and Covington, Ky., not included.

<sup>6</sup> St. Joseph, Mo., not included.

<sup>7</sup> Madison, Wis., not included.

<sup>8</sup> Norfolk, Va., not included.

Number of cities included in summary of weekly reports, and aggregate population of cities in each group, approximated as of July 1, 1925 and 1926, respectively

Group of cities	Number of cities reporting cases	Number of cities reporting deaths	Aggregate population of cities reporting cases		Aggregate population of cities reporting deaths	
			1925	1926	1925	1926
Total.....	103	96	29,944,996	30,473,129	29,251,658	29,764,201
New England.....	12	12	2,176,124	2,206,124	2,176,124	2,206,124
Middle Atlantic.....	10	10	10,346,970	10,476,970	10,346,970	10,476,970
East North Central.....	16	16	7,481,656	7,655,436	7,481,656	7,655,436
West North Central.....	14	11	2,594,962	2,634,662	2,461,380	2,499,086
South Atlantic.....	21	21	2,716,070	2,776,070	2,716,070	2,776,070
East South Central.....	7	7	993,103	1,004,953	993,103	1,004,953
West South Central.....	3	6	1,181,657	1,212,057	1,078,198	1,103,693
Mountain.....	9	9	563,012	572,773	563,012	572,773
Pacific.....	6	4	1,888,142	1,934,084	1,434,245	1,469,144



## FOREIGN AND INSULAR

### SMALLPOX ON VESSEL

*Steamship "Benjamin Brewster"—At Key West Quarantine from Rotterdam via Hamburg.*—On April 12, 1926, the steamship *Benjamin Brewster* arrived at Key West Quarantine, Fla., from Rotterdam, Netherlands, via Hamburg, Germany, with a convalescent case of smallpox in a member of the crew. The case was removed and the personnel of the vessel were vaccinated, with the exception of the captain, who had had smallpox. The vessel was remanded to Galveston, Tex., quarantine.

### THE FAR EAST

*Report for week ended April 10, 1926.*—The following report for the week ended April 10, 1926, was transmitted by the far eastern bureau of the health section of the League of Nations' secretariat, located at Singapore, to the headquarters at Geneva:

Port	Plague		Cholera		Small-pox		Port	Plague		Cholera		Small-pox	
	Cases	Deaths	Cases	Deaths	Cases	Deaths		Cases	Deaths	Cases	Deaths	Cases	Deaths
Bombay	0	1	0	0	36	20	Nilgata	0	0	0	0	0	0
Madras	0	0	0	0	1	7	Tsuruga	0	0	0	0	0	0
Rangoon	0	7	4	8	0	0	Hakodate	0	0	0	0	0	0
Karachi	0	1	0	10	0	0	Keelung (Formosa)	0	0	0	0	0	0
Negapatam	0	0	0	0	0	0	Fusan	0	0	0	0	0	0
Basra	0	0	0	0	7	5	Chemulpo	0	0	0	0	0	0
Singapore	0	0	0	0	0	0	Dairen	0	0	0	0	3	0
Port Swettenham	0	0	0	0	0	0	Adelaide	0	0	0	0	0	0
Penang	0	0	0	0	0	0	Brisbane	0	0	0	0	0	0
Bata via	0	0	0	0	0	0	Fremantle	0	0	0	0	0	0
Surabaya	1	1	0	0	0	0	Melbourne	0	0	0	0	0	0
Samarang	0	0	0	0	0	0	Sydney	0	0	0	0	0	0
Cheribon	4	4	0	0	0	0	Rockhampton	0	0	0	0	0	0
Belawan Deli	0	0	0	0	0	0	Townsville	0	0	0	0	0	0
Palembang	0	0	0	0	0	0	Port Darwin	0	0	0	0	0	0
Sabang (Rhio)	0	0	0	0	0	0	Brooma	0	0	0	0	0	0
Makassar	1	0	0	0	0	0	Port Moresby	0	0	0	0	0	0
Menada	0	0	0	0	0	0	Auckland	0	0	0	0	0	0
Banjarmassin	0	0	0	0	0	0	Wellington	0	0	0	0	0	0
Tarakan	0	0	0	0	0	0	Christchurch	0	0	0	0	0	0
Pontianak (Borneo)	0	0	0	0	0	0	Invercargill	0	0	0	0	0	0
Sandakan (North Borneo)	0	0	0	0	0	0	Noumea (New Caledonia)	0	0	0	0	0	0
Kuching (Sarawak)	0	0	0	0	0	0	Honolulu	0	0	0	0	0	0
Timor Dilly	0	0	0	0	0	0	Suez	0	0	0	0	1	0
Manila	0	0	0	0	0	0	Tor (quarantine station)	0	0	0	0	0	0
Hilo	0	0	0	0	0	0	Alexandria	0	0	0	0	0	0
Jolo	0	0	0	0	0	0	Port Said	0	0	0	0	0	0
Cebu	0	0	0	0	0	0	Port Sudan	0	0	0	0	0	0
Zamboanga	0	0	0	0	0	0	Mombasa (Kenya)	0	0	0	0	0	0
Bangkok	2	0	102	61	9	5	Massowah	0	0	0	0	0	0
Saigon and Cholon	1	0	21	10	0	0	Djibuti	0	0	0	0	0	0
Haiphong	0	0	0	0	0	0	Berbera	0	0	0	0	0	0
Tourane	0	0	0	0	0	0	Mozambique	0	0	0	0	0	0
Hongkong	0	0	0	0	3	1	Laurence Marques	0	0	0	0	0	0
Shanghai	0	0	0	0	0	2	Durban	0	0	0	0	0	0
Amoy	0	0	0	0	5	0	East London	0	0	0	0	0	0
Nagasaki	0	0	0	0	0	0	Port Elizabeth	0	0	0	0	0	0
Yokohama	0	0	0	0	4	1	Cape Town	0	0	0	0	0	0
Simenoseki	0	0	0	0	0	0	Port Louis (Mauritius)	0	0	0	0	0	0
Moji	0	0	0	0	0	0	Seychelles	0	0	0	0	0	0
Kobe	0	0	0	0	0	0							
Osaka	0	0	0	0	2	0							

## CANADA

*Communicable diseases—Week ended April 17, 1926.*—The Canadian Ministry of Health reports certain communicable diseases in seven Provinces of Canada for the week ended April 17, 1926, as follows:

Disease	Nova Scotia	New Brunswick	Quebec	Ontario	Manitoba	Saskatchewan	Alberta	Total
Influenza.....	115	-----	-----	-----	2	-----	-----	117
Smallpox.....	-----	-----	-----	10	4	17	3	34
Typhoid fever.....	1	-----	15	3	1	-----	-----	20

<sup>1</sup> For week ended Apr. 10, 1926, 8 cases reported.

## ECUADOR

*Plague—Guayaquil—March, 1926.*—During the month of March, 1926, 12 cases of plague with 6 deaths were reported at Guayaquil, Ecuador.

*Plague-infected rats found.*—During the same period 19,744 rats were taken at Guayaquil, and 137 rats found infected.

## EASTER ISLAND

*Leprosy.*—Under date of March 16, 1926, leprosy was reported present on Easter Island with 12 cases.

## GREAT BRITAIN (SCOTLAND)

*Epidemic measles—Glasgow—March, 1926.*—The outbreak of measles which was reported during the months of January and February, 1926, at Glasgow, with 4,519 cases and 65 deaths occurring in January and 5,986 cases in February, 1926,<sup>1</sup> was stated to have decreased during March, 3,684 cases being reported in that month.

*Respiratory diseases.*—Prevalence of influenza and pneumonia was reported during the latter part of March, 1926, with 725 cases of pneumonia and 39 of acute influenza pneumonia during a four-week period. Population, 1,034,500.

## INDO-CHINA (FRENCH)

*Cholera, plague, and smallpox—November–December, 1925.*—During the months of November and December, 1925, cholera, plague, and smallpox were reported as follows in French Indo-China: November, 1925—cholera, 1 case; plague, 2 fatal cases; smallpox, 142 cases, 24 deaths. December, 1925—cholera, 3 cases, 2 deaths; plague, 1 fatal case; smallpox, 188 cases, 24 deaths. For distribution of occurrence according to Provinces, see pages 911, 912, 913.

<sup>1</sup> Public Health Reports, Apr. 2, 1926, p. 639.

## UNION OF SOUTH AFRICA

*Plague—Orange Free State—March 7-13, 1926.*—During the week ended March 13, 1926, 3 cases of plague were reported in the Orange Free State of the Union of South Africa. The occurrence was in the district of Hoopstad, at Bultfontein Area, with 1 case in a European, and in the district of Winburg, with 2 cases, 1 European and 1 native.

*Typhus fever—February, 1926.*—During the month of February, 1926, 69 cases of typhus fever with 10 deaths were reported in the Union of South Africa. Of these, 64 cases with 10 deaths occurred among the colored or native population, and 5 cases among the European population. For distribution of occurrence according to locality see page 913.

## VIRGIN ISLANDS

*Communicable diseases—March, 1926.*—Communicable diseases were reported in the Virgin Islands of the United States during the month of March, 1926, as follows:

Disease and Island	Cases	Remarks
St. Thomas and St. John:		
Chancroid.....	1	
Fish poisoning.....	1	
Gonorrhea.....	4	
Influenza.....	1	St. John.
Malaria.....	1	Malignant tertian; imported.
St. Croix:		
Chancroid.....	5	
Filariasis.....	1	Bancrofti.
Gonorrhea.....	1	
Syphilis.....	2	Secondary.
Tetanus.....	2	

## CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER

The reports contained in the following tables must not be considered as complete or final as regards either the lists of countries included or the figures for the particular countries for which reports are given.

Reports Received During Week Ended May 7, 1926<sup>1</sup>

## CHOLERA

Place	Date	Cases	Deaths	Remarks
India:				
Calcutta.....	Mar. 7-13.....	66	55	
Madras.....	Mar. 21-27.....	17	9	
Rangoon.....	Mar. 7-20.....	3	2	
Indo-China.....				
Province—				
Cambodia.....	Dec 1-31.....	2	1	
Cochin China.....	do.....	1	1	
Tonkin.....	Nov. 1-30.....	1		
Philippine Islands.....				
Province—				
Batangas.....	Feb 14-20.....	6	0	
Rizal.....	Feb 7-13.....	3		
Do.....	Feb 14-20.....	1	1	
Romblon.....	Nov. 8-14.....	2	1	
Siam:				
Bangkok.....	Feb. 21-Mar. 13.....	185	133	

<sup>1</sup>From medical officers of the Public Health Service, American consuls, and other sources

# **CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued**

## **Reports Received During Week Ended May 7, 1926—Continued**

### **PLAGUE**

Place	Date	Cases	Deaths	Remarks
Ceylon:				
Colombo.....	Feb 28-Mar. 6....	1	2	
Ecuador:				
Guayaquil.....				March, 1926: Cases, 12; deaths, 6. Rats taken 19,744; found infected, 137.
Egypt:				
City—				
Suez.....	Mar. 27.....	1	1	
Province—				
Gharbieh.....	Mar. 28-30.....	4	2	
India:				
Bombay.....	Mar. 7-13.....	4	2	
Madras Presidency.....	Feb. 28-Mar. 6....	104	64	
Rangoon.....	Mar. 7-20.....	48	40	
Indo-China:				
Province—				
Cambodia.....	Nov. 1-30.....	2	2	Nov. 1-30, 1925: Cases, 2; deaths, 2. Corresponding period 1924—cases, 11; deaths, 10.
Cochin China.....	Dec 1-31.....	1	1	Dec. 1-31, 1925: Case, 1; death, 1. Corresponding period 1924—cases, 11; deaths, 10.
Iraq:				
Bagdad.....	Feb. 26-Mar. 13....	19	7	
Java:				
Batavia.....	Mar. 6-12.....	41	40	Province.
Probolinggo.....	Feb. 12.....			Epidemic. Port.
Surabaya.....	Feb. 14-27.....	6	6	
Madagascar:				
Province—				
Fort Dauphin.....	Feb. 1-15.....	1	1	Feb. 1-15, 1926: Cases, 169; deaths, 158. Bubonic—cases, 92; deaths, 81. Pneumonic—cases, 43; deaths, 43. Septicemic—cases, 34; deaths, 34.
Itasy.....	do.....	29	29	Miarinarivo
Moramanga.....	do.....	5	5	
Tananarive.....	do.....	130	91	Tananarive town: Cases, 4; deaths, 4. Other localities: Cases, 128; deaths, 117.
Tamatave (town).....	do.....	4	2	
Madagascar				
Moramanga Province.....	Feb. 16-28.....	6	5	Feb. 16-28, 1926: Cases, 108; deaths, 104. Bubonic—cases, 51; deaths, 48. Pneumonic—cases, 29; deaths, 28. Septicemic—cases, 18; deaths, 18.
Tananarive Province—				
Tananarive town.....	do.....	10	10	
Other localities.....	do.....	92	89	
Siam:				
Bangkok.....	Feb. 28-Mar. 13....	5		
Union of South Africa.....				
Orange Free State—				
Hoopstad district.....	Mar. 7-13.....	1		Mar. 7-13, 1926: Cases, 3; European, 2.
Winburg district.....	do.....	2		European. On farms. European, 1; native, 1.

### **SMALLPOX**

Canada:				
Alberta.....				Apr. 11-17, 1926: Cases, 3.
Manitoba.....				Apr. 11-17, 1926: Cases, 4.
Ontario.....				Apr. 11-17, 1926: Cases, 10.
Sarnia.....	Apr. 4-17.....	3		
Saskatchewan.....				Apr. 11-17, 1926: Cases, 17.
China:				
Foochow.....	Feb. 14-20.....			Present.
Hongkong.....	Feb. 27-Mar. 13....	2	1	
Manchuria—				
Harbin.....	Mar. 12-18.....	5		
Swatow.....	Mar. 14-20.....			Prevalent.
France:				
Paris.....	do.....	4		
Great Britain:				
England and Wales.....				Apr. 4-10, 1926: Cases, 190.
Newcastle-on-Tyne.....	Mar. 26-Apr. 10....	5		
Nottingham.....	Mar. 7-13.....	3		
India:				
Bombay.....	Mar. 7-13.....	28	18	
Calcutta.....	do.....	65	46	

# **CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued**

## **Reports Received During Week Ended May 7, 1926—Continued**

### **SMALLPOX—Continued**

Place	Date	Cases	Deaths	Remarks
India—Continued				
Karachi.....	Mar. 14-27.....	10	3	
Madras.....	Mar. 21-27.....	7	1	
Rangoon.....	Feb. 14-26.....	32	3	
Indo-China.....				Nov. 1-30, 1925: Cases, 142; deaths, 24. Corresponding period, 1924—cases, 187; deaths, 47. Dec. 1-31, 1925: Cases, 188; deaths, 24. Corresponding period, 1924—cases, 483; deaths, 114.
Province—				
Annam.....	Nov. 1-30.....	54	5	
Do.....	Dec. 1-31.....	88	16	
Cambodia.....	Nov. 1-30.....	1	1	
Do.....	Dec. 1-31.....	11	3	
Cochin China.....	Nov. 1-30.....	31	17	
Do.....	Dec. 1-31.....	14	4	
Tonkin.....	Nov. 1-30.....	56	1	
Do.....	Dec. 1-31.....	75	1	Reported present in Laos.
Mexico:				
San Luis Potosi.....	Mar. 21-Apr. 17.....	15		
Persia:				
Teheran.....	Dec. 22-Jan. 20.....		70	
Poland.....				Jan. 1-16, 1926: Cases, 4.
Portugal.....	Mar. 1-28.....		6	
Siam.....				
Bangkok.....	Feb. 21-Mar. 6.....	17	12	
Spain:				
Valencia.....	Apr. 4-10.....	1		

### **TYPHUS FEVER**

Algeria:				
Algiers.....	Mar. 21-31.....	1		
Chile:				
Valparaiso.....	Mar. 21-27.....		1	
China:				
Antung.....	Mar. 8-14.....	4		
Shanghai.....	Mar. 14-20.....	1		
Mexico:				
Mexico City.....	Mar. 21-27.....	4		Including municipalities in Federal District.
Peru:				
Arequipa.....	Feb. 1-28.....		1	
Tunisia:				
Tunis.....	Mar. 21-31.....	3		
Union of South Africa.....				February, 1926: Cases, 64; deaths, 10, in native population; in European population, 5 cases. Total: Cases, 69; deaths, 10.
Cape Province.....	Feb. 1-28.....	52	6	Native.
Natal.....	do.....	2		Do.
Orange Free State.....	do.....	2		Do.
Transvaal.....	do.....	8	4	Do.
Johannesburg.....	Mar. 14-20.....	1		

## **Reports Received from December 26, 1925, to April 30, 1926<sup>1</sup>**

### **CHOLERA**

Place	Date	Cases	Deaths	Remarks
Chosen.....	October-November, 1925.....	12	5	
French Settlements in India.....	Dec. 1-31.....	880	712	
India.....				Oct. 18, 1925, to Jan. 2, 1926: Cases, 21,316; deaths, 12,371.
Calcutta.....	Nov. 1-28.....	101	89	Jan. 2-Feb. 6, 1926: Cases, 17,858; deaths, 10,050.
Do.....	Dec. 6-26.....		54	
Do.....	Dec. 27-Jan. 16.....		41	
Do.....	Jan. 24-Mar. 6.....	255	244	
Madras.....	Nov. 15-Jan. 2.....	174	70	
Do.....	Jan. 3-Mar. 20.....	123	76	
Rangoon.....	Nov. 8-Dec. 5.....	4	4	
Do.....	Jan. 24-Mar. 6.....	6	4	

<sup>1</sup> From medical officers of the Public Health Service, American consuls, and other sources.

# CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued

Reports Received from December 26, 1925, to April 30, 1926—Continued

## CHOLERA—Continued

Place	Date	Cases	Deaths	Remarks
Indo-China				September, 1925: Cases, 9; deaths, 5. September, 1924: Cases, 7; deaths, 4. (European cases, 2.)
Province—				
Annam	Sept 1-30	2	2	
Cochin China	do	5	3	
Saigon	Jan. 4-17	2	2	
Tonkin	September, 1925	2		Including 100 square kilometers of surrounding country.
Japan	Aug 30-Oct. 17	409		
Do	Oct. 25-Dec. 26	113		
Philippine Islands:				
Manila	Nov. 9-Jan. 3	15	10	
Do	Jan 4-Mar. 6	3	27	
Province—				
Bataar	Nov. 30-Dec. 26	29	25	
Do	Jan 2-16	1	1	
Batangas	Jan. 24-Feb. 13	7	7	
Bohol	Jan. 23-30	1	1	
Bulacan	Oct. 18-Nov. 7	92	64	
Do	Nov. 23-Dec. 31	200	88	
Do	Jan. 2-30	6	6	
Laguna	Nov. 23-Dec. 26	18	14	
Do	Jan. 24-Feb. 6	5	6	
Leyte	Jan. 3-9	2	2	
Mindoro	Dec. 20-31	35	30	
Nueva Reija	Nov. 30-Dec. 13	7	5	
Pampanga	Nov. 1-7	1	1	
Do	Nov. 23-Dec. 31	113	85	
Do	Jan. 2-Feb. 20	38	34	
Rizal	Sept. 27-Nov. 21	75	21	
Do	Dec. 21-30	14	11	
Do	Jan. 3-30	85	29	
Romblon	Nov. 8-Dec. 13	25	13	
Russia	May-June	7		
Do	July-August	4		
Siam:				
Bangkok	Oct. 4-Nov. 14	108	68	
Do	Nov. 22-Dec. 26	270	149	
Do	Dec. 27-Feb. 20	213	142	
On vessel:				
Steamship	Oct. 3	9		Arrived at Bangkok, Siam: Cases in coolie passengers.

## PLAGUE

Argentina					
Buenos Aires	Jan. 24-30	1			Jan. 24-30, 1926: 6 cases, occurring in interior Provinces of Salta and Santa Fe.
Azores:					
St. Michaels	Jan. 17-30	4	2		
Do	Feb. 7-13	1			In outskirts of city of Ponta Delgada.
Belgium:					
Vilvorde	Dec. 1-8	1	1		
Brazil:					
Bahia	Nov. 8-Dec. 28	3	1		
Do	Dec. 27-Jan. 30	4	2		
Santos	Dec. 8-21		2		
Sao Paulo	Reported Mar. 25	4	1		
British East Africa:					
Kenya—					
Kisumu	Nov. 22-Dec. 5	1	2		
Do	Jan. 31-Feb. 27	4	3		
Uganda Protectorate	Sept. 1-Dec. 31	468	426		
Canary Islands:					
La Laguna	Dec. 24	3	2		
Las Palmas	do	1			
Do	Jan. 7	1	1		
Santa Cruz de Tenerife	Dec. 18-27	3			
Do	Dec. 28-Feb. 1	3			
Celebes:					
Makassar	Dec. 29-Feb. 2	12	12		Netherlands East Indies.
Ceylon:					
Colombo	Nov. 15-Dec. 5	3	3		1 plague rodent
Do	Dec. 27-Jan. 16	2	2		
Do	Jan. 24-Feb. 27	4	3		Feb. 14-20, 1926: Two plague rodents.

# **CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued**

**Reports Received from December 26, 1925, to April 30, 1926—Continued**

## **PLAGUE—Continued**

Place	Date	Cases	Deaths	Remarks
China:				
Nanking	Nov. 15-Mar. 27			Prevalent.
Ecuador:				
Eloy Alfaro	Jan. 1-15	1		
Guayaquil	Nov. 1-Dec. 31	31	12	
Do.	Jan. 1-Mar. 15	59	29	Rats taken, Nov. 1-Dec. 31, 1925, 49,370; rats found infected, 281. Rats taken, Jan. 1-Mar. 15, 1926, 54,393; rats found infected, 477.
Recreo (country estate)	do.	1		
Egypt:				
Alexandria	Mar. 10-18	2	1	Jan. 1-Dec. 9, 1925. Cases, 138.
Beni Suef	Nov. 18	1	1	
Fayoum Province	Dec. 3-9	1	1	
Gharbia Province	Mar. 9	1	1	
Minia Province	Mar. 4	1	1	
Greece:				
Athens	Nov. 1-30	18	1	Including Piræus.
Do.	Jan. 1-Mar. 31	25	4	
Herakleion	Feb. 4	1		On island of Crete.
Patras	Nov. 13-Dec. 12	4	1	
Hawaii Territory	Feb. 2			1 plague-infected rodent found near Hamakua Mill Co.
Hawaii:				
Kakuihacle	Mar. 19	1	1	
Honakaa	Mar. 16	2		1 death suspected plague.
Pauilo				Jan. 30, 1926: Plague-infected rat found in vicinity.
India:				
Bombay	Dec. 6-12	1	1	Oct. 18, 1925, to Jan. 2, 1926: Cases, 15,135; deaths, 10,677.
Do.	Jan. 3-Feb. 20		8	Jan. 3-Feb. 6, 1926: Cases, 17,402; deaths, 13,598.
Calcutta	Dec. 6-12		1	
Karachi	Nov. 1-Dec. 19	4	3	
Do.	Feb. 21-Mar. 6	3	3	
Madras Presidency	Oct. 25-Nov. 7	75	41	
Do.	Nov. 15-21	35	22	
Do.	Dec. 20-26	108	64	
Do.	Jan. 3-Feb. 20	971	617	
Rangoon	Oct. 25-Dec. 26	23	15	
Do.	Dec. 27-Mar. 6	45	43	
Indo-China:				
Province—				September-October, 1925: Cases, 25; deaths, 23.
Cambodia	Sept. 1-30	11	11	
Cochin China	September-October	14	12	
Iraq:				
Bagdad	Dec. 13-Jan. 2	7	3	
Do.	Jan. 10-Feb. 27	56	37	
Java:				
Batavia	Oct. 24-Nov. 6	94	89	Province.
Do.	Nov. 14-Jan. 1	315	297	
Do.	Jan. 2-Mar. 5	442	428	
Cheribon	Sept. 27-Oct. 17		166	
Do.	Nov. 15-Dec. 26		198	
Do.	Jan. 3-Feb. 6		8	
Djakakarta	Oct. 20-Nov. 9			Epidemic in 1 locality.
Kediri	Dec. 7			Do.
Koeningan	Dec. 27-Jan. 18		114	
Pekalongan	Sept. 27-Oct. 17		42	
Do.	Nov. 8-Dec. 26		252	
Rembang	Oct. 20			Do.
Surabaya	Oct. 11-Dec. 26	59	59	
Do.	Dec. 27-Feb. 13	34	34	
Tegal	Sept. 27-Oct. 17	6	6	
Do.	Nov. 8-Dec. 26		31	
Madagascar:				
Province—				Nov. 1-December, 1925: Cases, 632; deaths, 598. Jan. 1-31, 1926: Cases, 334; deaths, 303.
Ambositra	Dec. 16-31	9	7	
Do.	Jan. 1-15	2	2	
Itasy	Sept. 16-Oct. 31	20	20	
Do.	Nov. 16-Dec. 31	34	34	
Do.	Jan. 1-15	29	29	
Moramanga	Sept. 16-Dec. 31	49	48	
Do.	Jan. 1-31	35	34	
Tananarive	Sept. 16-Nov. 30	368	341	
Do.	Dec. 16-31	152	143	
Do.	Jan. 1-31	268	227	

# **CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued**

**Reports Received from December 26, 1925, to April 30, 1926—Continued**

## **PLAGUE—Continued**

Place	Date	Cases	Deaths	Remarks
Madagascar—Continued.				
Town—				
Fort Dauphin.....	Sept. 16-Nov. 30..	6	3	
Do.....	Jan. 16-31.....	1	1	
Tamatave (port).....	Sept. 16-30.....	3	2	
Do.....	Oct. 16-Nov. 30..	9	9	
Tananarive.....	Sept. 16-30.....	2	2	
Do.....	Nov. 1-30.....	11	11	
Do.....	Jan. 1-31.....	9	9	
Mauritius Island.....	Sept. 20-Dec. 23..	21	18	
Moca.....	Dec. 1-31.....	2	2	
Pamplemousses.....	Oct. 1-Nov. 30..	3	2	
Port Louis.....	Oct. 1-Dec. 31..	13	9	
Rivière du Rempart.....	October.....	2	2	
Nigeria.....	Aug. 1-Nov. 30..	559	419	
Persia:				
Teheran.....	Oct. 21-Nov. 21..		12	
Peru.....				January, February, 1926: Cases, 290; deaths, 111.
Huacho.....	Jan. 26.....	15		Port 60 miles north of Callao.
Lima.....	Jan. 1-31.....	20		In hospital. Some cases in Province.
Mollendo.....	do.....			12 or 15 cases reported unofficially.
Russia.....	May-June.....	67		
Do.....	July-October.....	166		
Senegal.....	September-October..	45	25	
Siam.....	Aug. 23-Dec. 26..	65	53	
Bangkok.....	Nov. 15-28.....	3	3	
Do.....	Jan. 3-30.....	38	33	
Do.....	Feb. 7-20.....	6	5	
Straits Settlements:				
Singapore.....	Nov. 1-Dec. 5.....	8	8	
Do.....	Jan. 3-9.....	2	2	
Syria:				
Beirut.....	Nov. 11-20.....	1		
Do.....	Jan. 21-31.....	1		
Union of South Africa:				
Cape Province—				
Kimberley district.....	Dec. 13-19.....	1		
Middleburg district.....	Dec. 6-12.....	1		European.
Steynsburg district.....	Nov. 15-21.....	1		Native. On farm.
Winburg district.....	Feb. 21-27.....	1		
Orange Free State—				
Boshof district.....	Nov. 29-Dec. 5.....	1	1	In native.
Bothaville district.....	Dec. 6-12.....	1	1	Native. On farm.
On vessel:				
Steamship Cid.....				Jan. 29, 1926. At Buenaventura, Colombia. Rat was killed while jumping ashore from vessel.

## **SMALLPOX**

Algeria:				
Algiers.....	Nov. 21-Dec. 31..	177		
Do.....	Jan. 1-10.....	64		
Do.....	Jan. 21-Mar. 20..	72		
Ambia:				
Aden.....	Nov. 29-Dec. 5.....	1		Imported.
Do.....	Jan. 10-Mar. 6.....	10	1	
Argentina:				
Rosario.....	October.....		1	
Australia:				
Queensland—				
Brisbane.....	Dec. 9-15.....	1		
Bahamas.....	Feb. 23.....			In Nassau district. Stated to have been imported.
Bangal:				
Manaos.....	Dec. 1-31.....		12	
Do.....	Jan. 31-Feb. 20..		6	
Para.....	Jan. 10-Mar. 6.....	28	6	



# CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued

Reports Received from December 26, 1925 to April 30, 1926—Continued

## SMALLPOX—Continued

Place	Date	Cases	Deaths	Remarks
Brazil—Continued.				
Rio de Janeiro	Nov. 1-28	134	72	
Do	Dec. 6-26	65	26	
Do	Dec. 27-Feb. 20	195	131	
British East Africa:				
Kenya—				
Mombasa	Nov. 15-Dec. 19	14	6	
Do	Dec. 27-Jan. 2	1		From mainland.
Uganda Protectorate	Sept. 1-Oct. 31	8	4	
British South Africa:				
Northern Rhodesia	Jan. 5-11	2		
Southern Rhodesia	Nov. 13-Dec. 23	3		
Canada				Sept. 13-Jan. 2: In 7 Provinces, 136 cases. Jan. 3-Feb. 27, 1926: Cases, 277.
Alberta				Jan. 3-Apr. 3, 1926: Cases, 55.
Calgary	Dec. 13-19	1		From Drummheller, vicinity of Calgary.
British Columbia—				
Vancouver	Jan. 4-Mar. 27	2		
Victoria	Mar. 21-27	2		
Manitoba				Jan. 3-Apr. 3, 1926: Cases, 44.
Winnipeg	Dec. 13-19	2		
Do	Jan. 3-Apr. 10	16	1	
New Brunswick—				
Northumberland	Dec. 6-13	1		
Ontario				Dec. 1-31, 1925. Cases, 32. Jan. 3-Apr. 3, 1926: Cases, 204.
Admaston	Jan. 1-Feb. 1	16		Township.
Alice and Fraser	Feb. 1-28	6		Do.
King	do	7		Do.
Wilmot	do	6		Do.
Belleville	do	4		
Kingston	Mar. 8-14	1		
Kitchener	do	26	16	
North Bay	Feb. 14-Mar. 14	7		
Ottawa	Dec. 6-12	2		
Do	Jan. 8-Feb. 6	2		
Sarnia	Mar. 14-20	1		
Toronto	Dec. 27-Jan. 2	1		
Do	Jan. 3-Mar. 20	26		
Trenton	do	15		
Saskatchewan				Jan. 3-Apr. 3, 1926: Cases, 73.
Moose Jaw	Jan. 3-Mar. 20	2		
Regina	Jan. 24-Mar. 13	3		
Saskatoon	Feb. 14-20	1		
Ceylon:				
Colombo	Dec. 6-12	1		Port case.
Do	Jan. 3-Feb. 6	5		
Chile:				
Punta Arenas	Dec. 13-26		8	
Do	Dec. 27-Jan. 2		4	
China:				
Amoy	Oct. 25-Dec. 19		1	
Do	Jan. 10-Mar. 20		16	
Antung	Dec. 7-20	2		
Changsha	Feb. 21-27			Present.
Chungking	Nov. 15-27			Do.
Do	Feb. 28-Mar. 20			Do.
Foochow	Nov. 1-Mar. 6			Do.
Hankow	Nov. 14-Dec. 26	4		
Do	Jan. 10-Mar. 6	3		
Hongkong	Nov. 22-Dec. 26	4		
Do	Jan. 3-Feb. 27	9	4	
Manchuria—				
An-shan	Dec. 6-12	1		
Do	Jan. 10-Mar. 20	9		
Changchun	do	21		
Dairen	Oct. 19-Dec. 27	73	15	
Do	Dec. 23-Mar. 7	77	24	
Fushun	Jan. 17-Mar. 20	2		
Harbin	Jan. 1-Mar. 11	5		
Kai-yuan	Jan. 10-30	4		
Kungchuling	Jan. 31-Feb. 20	2		
Liao-yang	Jan. 17-Mar. 20	3		

# CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued

Reports Received from December 26, 1925, to April 30, 1926—Continued

## SMALLPOX—Continued

Place	Date	Cases	Deaths	Remarks
China—Continued.				
Manchuria—Continued.				
Mukden.....	Oct. 24-Nov. 15.....	1	—	
Do.....	Jan. 24-Feb. 27.....	4	—	
Suping Kai.....	Mar. 14-20.....	1	—	
Tieh-jing.....	Oct. 26-Nov. 15.....	2	—	
Nanking.....	Nov. 21-Dec. 26.....	—	—	Do.
Do.....	Dec. 27-Mar. 27.....	—	—	Do.
Shanghai.....	Oct. 25-Jan. 2.....	37	36	
Do.....	Jan. 3-Mar. 13.....	56	131	Cases, foreign only.
Swatow.....	Nov. 22-Mar. 13.....	—	—	Prevalent.
Tientsin.....	Nov. 1-Dec. 19.....	2	—	
Do.....	Jan. 23-Feb. 27.....	2	—	
Chosen:				
Seishin.....	Jan. 1-Feb. 28.....	48	27	
Egypt:				
Alexandria.....	Dec. 3-31.....	5	2	
Do.....	Jan. 3-14.....	2	1	
Do.....	Jan. 29-Mar. 4.....	22	6	
Port Said.....	Feb. 26-Mar. 4.....	1	—	
Esthonia.....				November, 1925. Cases, 3.
France.....	Jan. 25-31.....	—	9	September-December, 1925:
Havre.....	Mar. 1-10.....	5	1	Cases, 253.
Paris.....	September, Dec- ember.....	58	5	
Gold Coast.....				
Great Britain:				
England and Wales.....				Nov. 15-Dec. 26, 1925: Cases, 760
Hull.....	Dec. 27-Jan. 23.....	29	—	Dec. 27-Apr. 3, 1926: Cases, 3,611.
Do.....	Feb. 7-Mar. 27.....	9	—	
Leeds.....	Jan. 14-Feb. 6.....	4	—	
London.....	Jan. 31-Feb. 6.....	—	1	
Newcastle-on-Tyne.....	Nov. 29-Dec. 19.....	6	—	
Do.....	Dec. 27-Mar. 27.....	35	1	
Nottingham.....	Nov. 22-Dec. 26.....	9	—	
Do.....	Dec. 27-Feb. 27.....	3	—	
Sheffield.....	Nov. 22-Dec. 12.....	7	—	
Do.....	Dec. 20-26.....	3	—	
Do.....	Dec. 27-Mar. 20.....	18	—	
South Shields.....	Feb. 9.....	—	—	Reported present in severe form.
Greece.....				Oct. 1-31, 1925: Cases, 16.
Athens.....	Nov. 1-Dec. 31.....	13	1	
Do.....	Jan. 1-Mar. 31.....	87	6	
Kalamata.....	Mar. 1-7.....	1	—	From Patras.
Saloniki.....	Feb. 16-Mar. 15.....	—	2	
India.....				Oct. 18-Dec. 26, 1925: Cases,
Bombay.....	Nov. 8-Dec. 26.....	26	20	19,472; deaths, 4,440. Dec. 27,
Do.....	Dec. 27-Mar. 6.....	172	95	1925-Feb. 6, 1926: Cases, 36,335;
Calcutta.....	Nov. 8-Dec. 26.....	48	25	deaths, 11,491.
Do.....	Dec. 27-Mar. 6.....	431	262	
Karachi.....	Nov. 1-21.....	23	—	
Do.....	Nov. 29-Dec. 5.....	4	2	
Do.....	Dec. 13-19.....	3	—	
Do.....	Dec. 29-Mar. 13.....	94	26	
Madras.....	Nov. 15-Dec. 26.....	17	5	
Do.....	Dec. 27-Mar. 20.....	114	21	
Rangoon.....	Oct. 25-Nov. 28.....	3	—	
Do.....	Dec. 6-26.....	4	1	
Do.....	Dec. 27-Jan. 16.....	13	1	
Do.....	Jan. 24-Mar. 6.....	70	17	
Indo-China.....				September-October, 1925: Cases,
Province—				204; deaths, 62.
Annam.....	Sept. 1-Oct. 31.....	90	23	
Cambodia.....	do.....	72	30	
Cochin China.....	do.....	61	30	
Salgon.....	Dec. 21-27.....	2	1	
Do.....	Jan. 1-Mar. 7.....	11	1	Including 100 kilometers of sur-
Tonkin.....	Sept. 1-Oct. 31.....	22	—	rounding country.
Iraq:				
Bagdad.....	Nov. 1-Dec. 26.....	19	15	Sept. 6-Oct. 17, 1925: Cases, 81;
Do.....	Dec. 27-Feb. 27.....	19	10	deaths, 40.
Basra.....	do.....	52	42	
Italy.....				Aug. 2, 1925: Jan. 2, 1926: Cases,
Catania.....	Feb. 15-28.....	1	1	52. Jan. 3-16, 1926: Cases, 12.
Genoa.....	Jan. 21-Feb. 10.....	4	—	
Rome.....	Oct. 12-25.....	1	—	

# CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued

Reports Received from December 26, 1925, to April 30, 1926—Continued

## SMALLPOX—Continued

Place	Date	Cases	Deaths	Remarks
Jamaica.....				Nov. 29-Dec. 26, 1925: Cases, 95. Dec. 27, 1925-Feb. 27, 1926: Cases, 260. Mar. 21-Apr. 3, 1926: Cases, 60. Reported as alastrim.
Kingston.....	Nov. 29-Dec. 26.....	43		Reported as alastrim.
Do.....	Dec. 27-Jan. 30.....	48		Do.
Do.....	Mar. 21-27.....	5		Do.
Japan.....				
Nagasaki.....	Feb. 15-21.....	1		
Taiwan.....	Nov. 11-Dec. 10.....	3		
Yokohama.....	Dec. 14-20.....	1		
Do.....	Feb. 23-Mar. 14.....	46	5	
Java.....				
Batavia.....	Oct. 24-Dec. 25.....	8		
Do.....	Feb. 20-Mar. 5.....	5		
Buitenzorg.....	Nov. 29-Dec. 5.....	1		
Cheribon.....	Nov. 8-Dec. 12.....	2		
Do.....	Jan. 31-Feb. 6.....		1	
Kraksaan.....	Oct. 11-17.....	11		
Malang.....	Oct. 11-Jan. 16.....	13		
North Bantam.....	Oct. 4-17.....	4		
Pekalongan.....	Oct. 25-31.....	1		
Pontianak.....	Jan. 31-Feb. 6.....		1	
Probolingo.....	Oct. 11-17.....	1		
South Bantam.....	do.....	1		
Surabaya.....	Oct. 11-Dec. 26.....	633	104	
Do.....	Dec. 27-Feb. 13.....	131	40	
Tegal.....	Oct. 4-10.....	9	1	
Latvia.....				December, 1925: Cases, 3.
Malta.....	Nov. 1-Dec. 21.....	21	3	
Do.....	Jan. 1-Feb. 28.....	20		
Mexico.....				July-September, 1925 Deaths, 1,157.
Aguascalientes.....	Dec. 13-Jan. 2.....	4	3	
Do.....	Jan. 3-30.....		7	
Do.....	Feb. 14-Mar. 27.....		12	
Durango.....	Dec. 1-31.....		1	
Do.....	Jan. 1-31.....		2	
Guadalajara.....	Dec. 27-Apr. 6.....		16	
Mexico City.....	Nov. 28-Dec. 5.....	1		Including municipalities in Fed- eral District.
Do.....	Jan. 3-Mar. 27.....	7		Do.
Saltillo.....	Apr. 4-10.....	1		
San Luis Potosi.....	Jan. 17-Mar. 20.....		53	
Do.....	Mar. 28-Apr. 10.....		14	
Tampico.....	Dec. 21-Jan. 2.....	1	1	
Do.....	Jan. 2-Mar. 10.....	8		
Torreón.....	Nov. 1-Dec. 31.....		51	
Do.....	Jan. 1-Mar. 31.....		65	
Vera Cruz.....	Mar. 29-Apr. 4.....	5	1	
Netherlands:				
The Hague.....	Jan. 30-Mar. 6.....	2	1	
Nigeria.....				August-November, 1925: Cases, 347; deaths, 6.
Palestine:				
Hebron.....	Jan. 26-Feb. 1.....	2		
Tiberias.....	Feb. 9-15.....	1		
Persia:				
Teheran.....	July 23-Dec. 22.....		775	
Peru:				
Arequipa.....	Oct. 1-Dec. 31.....		2	
Poland.....				Nov. 1-28, 1925: Cases, 9.
Portugal:				
Lisbon.....	Oct. 4-31.....	124		
Do.....	Nov. 16-Dec. 27.....		60	
Do.....	Nov. 14-Dec. 23.....	187		
Do.....	Dec. 27-Mar. 27.....	116	29	
Oporto.....	Nov. 22-Dec. 19.....	2	3	
Do.....	Dec. 27-Mar. 6.....	3	1	
Rumania.....	August-October.....	3		
Russia.....				May-June, 1925: Cases, 2,333.
Do.....	July-October.....	1,563		
Siam.....				July 12-Sept. 5, 1925: Cases, 21; deaths, 6.
Bangkok.....	Dec. 20-25.....	3	1	
Do.....	Dec. 26-Feb. 20.....	64	25	
Sierra Leone:				
Konno district.....	Dec. 16-31.....	5		

# **CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued**

**Reports Received from December 26, 1925, to April 30, 1926—Continued**

## **SMALLPOX—Continued**

Place	Date	Cases	Deaths	Remarks
Spain:				
Madrid.....	Year 1925.....		18	
Do.....	Jan. 1-31.....		1	
Malaga.....	Nov. 29-Dec. 5.....		2	
Do.....	Dec. 27-Jan. 2.....		1	
Valencia.....	Dec. 20-26.....	1		
Do.....	Dec. 27-Jan. 2.....	1		
Do.....	Jan. 10-Feb. 6.....	9		
Do.....	Feb. 14-Apr. 3.....	8		
Straits Settlements:				
Penang.....	Mar. 28-Apr. 3.....		1	
Singapore.....	Dec. 20-26.....	1		
Do.....	Jan. 10-16.....	2	1	
Sumatra:				
Medan.....	Feb. 14-27.....	2		
Switzerland:				
Lucerne.....	Oct. 1-Nov. 30.....	8		June 28-Nov. 21, 1925: Cases, 62;
Do.....	Jan. 1-31.....	5		Dec. 27, 1925-Jan. 30, 1926:
Zurich.....	Dec. 27-Jan. 2.....	1		Cases, 37.
Trinidad (West Indies):				
Port of Spain.....	Jan. 1-Mar. 20.....	8		
Tunisia:				
Tunis.....	Nov. 21-30.....	2		
Do.....	Dec. 11-31.....	10	1	
Do.....	Jan. 1-Feb. 20.....	6		
Union of South Africa:				
Cape Province.....	Jan. 17-23.....			Outbreaks.
Orange Free State—				
Kuruman district.....	Jan. 10-16.....			Do.
Ladybrand district.....	Dec. 27-Jan. 2.....			Do.
Transvaal—				
Belfast district.....	do.....			Do.
Germiston district.....	Jan. 2-9.....			Do.
Pretoria district.....	Dec. 6-12.....			Outbreaks. In native compound.
On vessel.....	Feb. 21.....	2		Mexican steamer Montezuma, at Port of Ensenada, Mexico.

## **TYPHUS FEVER**

Algeria:				
Algiers.....	Nov. 1-Dec. 20.....	2		
Do.....	Jan. 1-Mar. 20.....	10		
Argentina:				
Rosario.....	Oct. 13-Dec. 31.....	2		
Bulgaria.....	Sept. 1-Dec. 31.....	50	3	
Sofia.....	Dec. 25-31.....	1		
Do.....	Jan. 8-14.....	2		
Canary Islands:				
Santa Cruz de Tenerife.....	Mar. 8-14.....	1		
Chile.....				Dec. 15-31, 1925. Cases, 40.
Achao.....	Dec. 15-31.....	1		
Bulnes.....	do.....	1		
Chillan.....	do.....	24		
Concepcion.....	do.....	6		
Linares.....	do.....	1		
Los Angeles.....	do.....	5		
Penco.....	do.....	2		
San Carlos.....	do.....	1		
Talca.....	do.....	1		
Valparaiso.....	Nov. 29-Jan. 2.....	1	2	
Do.....	Dec. 15-31.....	4		
China:				
Antung.....	Nov. 29-Dec. 27.....	5	1	
Do.....	Jan. 4-Mar. 7.....	7		
Hongkong.....	Dec. 27-Jan. 2.....	1		
Manchuria—				
Harbin.....	Dec. 17-Feb. 4.....	3		
Czechoslovakia.....	October-December.....	146	1	
Egypt.....				
Alexandria.....	Jan. 8-Feb. 25.....	2		
Cairo.....	Nov. 5-Dec. 16.....	3	2	
Port Said.....	Nov. 19-25.....	1		
Do.....	Mar. 12-18.....	1		
Estonia.....	Jan. 1-31.....	6		

# CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued

Reports Received from December 26, 1925, to April 30, 1926—Continued

## TYPHUS FEVER—Continued

Place	Date	Cases	Deaths	Remarks
Finland.....				October, 1925 1 case.
France.....	July-October.....	4		
Greece.....				December, 1925: Cases, 12.
Athens.....	Nov. 1-30.....	11	2	
Do.....	Jan. 1-Mar. 31.....	45	9	
Saloniki.....	Dec. 29-Jan. 4.....	1		
Do.....	Feb. 2-8.....	1		
Hungary.....				November-December, 1925 Cases, 16.
Ireland:				
Cork County—				
Cork.....	Dec. 26-Jan. 1.....	2		
Do.....	Jan. 2-8.....	5		
Dumanway.....	Nov. 14.....	1		
Galway County.....	Oct. 17.....	1		
Kerry County—				
Listowel.....	Mar. 7-13.....	1		Rural district.
Wexford County—				
Gorey.....	do.....	1		Do.
Latvia.....	October-December.....	12		
Lithuania.....				September-October, 1925: Cases, 9; deaths, 1.
Mexico.....				July-September, 1925: Deaths, 90.
Aguascalientes.....	Dec. 14-19.....	1		
Durango.....	Dec. 1-31.....		1	
Do.....	Jan. 1-31.....		1	
Guadalajara.....	Dec. 8-28.....		2	
Do.....	Dec. 29-Jan. 4.....		1	
Mexico City.....	Nov. 22-Dec. 26.....	50		Including municipalities in Fed- eral District.
Do.....	Dec. 27-Mar. 20.....	89		Do.
San Luis Potosi.....	Feb. 6-13.....		1	
Tampico.....	Dec. 21-Jan. 10.....	1	1	
Torreón.....	November, 1925.....		1	
Vera Cruz.....	Feb. 12.....		1	
Morocco.....	August-December.....	93		
Norway.....				November-December, 1925: Cases, 2.
Palestine:				
Gaza.....	Dec. 18.....	1		
Haifa.....	Mar. 16-22.....	1		
Jaffa.....	Dec. 1-7.....	1		
Do.....	Feb. 23-Mar. 1.....	1		
Nazareth.....	Nov. 3-9.....	1		
Ramleh.....	Mar. 16-22.....	1		
Safad.....	Nov. 24-30.....	1		
Tel-Aviv.....	do.....	1		
Do.....	Mar. 9-15.....	1		
Tiberias.....	do.....	2		
Peru:				
Arequipa.....	October-December.....		3	
Poland.....	Oct. 11-Jan. 2.....	462	44	
Do.....	Jan. 3-16.....	190	14	
Rumania.....				July-October, 1925: Cases, 181; deaths, 22.
Constantza.....	Feb. 1-Mar. 10.....	2		
Russia.....				May-June, 1925: Cases, 10,680.
Do.....				July-October, 1925: Cases, 6,083.
Turkey:				
Constantinople.....	Jan. 24-30.....	3		From unofficial sources (press).
Do.....	Feb. 9-22.....	5	3	October, 1925: Cases, 85; deaths, 7 (colored). Cases, European, 7. December, 1925: Cases, 75; deaths, 9. Colored: Cases, 73; deaths, 9. January, 1926: Cases, 94; deaths, 18. Euro- pean cases, 5.
Union of South Africa.....				Colored.
Cape Province.....	Oct. 1-31.....	63	5	
Do.....	Nov. 8-Dec. 31.....	47	8	
Do.....	Jan. 1-Feb. 27.....	74	14	Do.
Grahamstown.....	Jan. 24-30.....	2		
Middleburg district.....	Dec. 6-12.....	1		European. On farm.
Natal.....	Oct. 1-Dec. 5.....	1		
Do.....	Jan. 1-31.....	9	1	Colored.
Durban.....	Jan. 3-Mar. 6.....	4		



TREASURY DEPARTMENT

# PUBLIC HEALTH REPORTS

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## SPECIAL ARTICLES

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The Leprosy Problem in the United States  
Reports of the Health Section of the League of Nations



WASHINGTON  
GOVERNMENT PRINTING OFFICE

1926

## UNITED STATES PUBLIC HEALTH SERVICE

HUGH S. CUMMING, *Surgeon General*

### DIVISION OF SANITARY REPORTS AND STATISTICS

Asst. Surg. Gen. B. J. LLOYD, *Chief of Division*

The PUBLIC HEALTH REPORTS are issued weekly by the United States Public Health Service through its Division of Sanitary Reports and Statistics, pursuant to acts of Congress approved February 15, 1893, and August 14, 1912.

They contain: (1) Current information of the prevalence and geographic distribution of preventable diseases in the United States in so far as data are obtainable, and of cholera, plague, smallpox, typhus fever, yellow fever, and other communicable diseases throughout the world. (2) Articles relating to the cause, prevention, or control of disease. (3) Other pertinent information regarding sanitation and the conservation of the public health.

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# PUBLIC HEALTH REPORTS

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No. 20

## THE LEPROSY PROBLEM IN THE UNITED STATES

By O. E. DENNEY, Surgeon (R), United States Public Health Service, Medical Officer in Charge U. S. Marine Hospital No. 66 (National Leprosarium, Carville, La.)

That leprosy now exists in the United States and has existed here for a great many years is a truism which seldom occurs to the average person until newspaper headlines attract attention to some unfortunate person who is afflicted with the disease. Then, after a few days' hysterical attention to the subject, the question again drops into temporary oblivion.

In some of our States leprosy has long been a problem of importance, because of its presence in neighborhoods populated by descendants of certain of the earlier settlers, and of the fact that its propagation there is due to factors not well understood. For lack of better explanations, racial or family predisposition, local habits and customs, and the like, are ascribed as causes. In other States, particularly those with large seaports, cases of leprosy develop among immigrants who have been admitted with the disease in an early and undiagnosable form, and the disease has spread, slowly, to be sure, among the native population. A third source of infection is that found in our military and maritime population, in the soldier or seaman who has lived in an infected territory for a number of years, has contracted the disease, and later returned to his native country.

Geographically, we consider the Gulf Coast States as the most important foci of leprosy; for it is here that we recognize indisputable evidence of the continued propagation of leprosy, and here the disease has existed for generations, having been sustained by contact with tropical America through commercial sources, through slave traffic, and, in addition, in the case of certain parts of Louisiana, probably augmented through the settling of the country by the Acadians.

A conservative estimate of the prevalence of leprosy in continental United States places the number at approximately 1,200. A reliable estimate of the number of lepers who have resided in the United States is well nigh impossible, and for many reasons. It is probable that many times leprosy has been confused with other diseases with which it has symptoms in common; furthermore, leprosy has not been consistently reported to health officials, and the public records must, of necessity, represent but a surface scratching. Then, too, in many instances physicians have hesitated to make a report of known cases of leprosy because of the unwarranted hysteria that

would have been provoked by the report of the presence of a case of leprosy in a neighborhood where no suitable facilities existed for isolation and treatment, and where the leper had been permitted and encouraged to move on. Sometimes this method of dealing with lepers has been most humiliating to the leper and disgraceful to the community.

It was evident more than 30 years ago that some concerted action was necessary if the progress of leprosy in the United States was to be checked, and plans were formulated for having the Federal Government assume control of the situation. Constructive effort, however, did not crystallize until February 3, 1917, when Congress enacted legislation and provided funds for the establishment of a National Home for Lepers. The entrance of the United States into the World War prevented active measures toward this project, although a committee was appointed to select a site for the proposed Leper Home. This committee met with great opposition in obtaining a site, because no State cared to cede territory to the Government for use as a leper settlement, and final solution of the matter was arrived at by purchasing from the State of Louisiana the estate occupied by the Louisiana Leper Home.

It is interesting to note that, even in the State of Louisiana, where leprosy has been endemic for many generations, the greatest difficulty was encountered by that State in establishing its own leper colony. In 1894, responding to a series of popular outbursts, manifested in the daily press and through the medical bodies of the State, the State legislature, then in session, passed an act creating a board of control, whose office was to provide a home for lepers and its subsequent care. In August, 1894, this board was appointed, and in September was organized after due promulgation of the act. At every hand obstacles were thrown in the way of the board's efforts to fulfill the duty imposed upon them.

When a desirable site was found and almost secured, misguided judgment refused to sanction the erection of the asylum for these unfortunate victims of leprosy, even though for years they had been allowed to travel on the street cars, eat at public restaurants, beg on the public thoroughfares, and otherwise expose an unguarded public.

A site was finally secured by lease for five years in Iberville Parish. This was the old "Indian Camp" plantation, desirable in every way for the home of the charges of the board, except with regard to accessibility.

On November 30, 1894, the first contingent of lepers was transported from New Orleans, by night, to their present home. This was accomplished with the greatest difficulty, on a coal barge, towed by a tug. The appalling details of the trip were depicted in the daily press.

For a time the existence of the home was threatened by the inhabitants of the Parish. A rational judgment, however, supplanted an early and misguided prejudice, and the poor sufferers were only the more pitied because they desired for themselves the isolation which the law compelled.

In 1900 the legislature of the State of Louisiana appropriated a sum of money to purchase a more convenient and suitable site for the State Leper Home, and the property under consideration was surveyed and plans were made for the building of a leprosarium. Local protests against the moving of the Leper Home to a site near New Orleans soon reached such a height of prejudice that, shortly before the actual occupation of the proposed new site, all existing buildings on the plantation were burned to the ground.

The committee appointed by the Surgeon General to select a site for the National Leprosarium (in accordance with the Act of February 3, 1917), by elimination of available locations, recommended that the Federal Government purchase the Louisiana Leper Home at Carville. The sale was consummated January 3, 1921, and, for the first time since the foundation of the Government, specific provision was made for lepers who might be found among its employees, especially those returning from service overseas. At the time when the United States Public Health Service assumed control of the Leper Home, facilities existed for approximately 80 beds and the Home was filled to capacity. Almost immediately steps were taken to enlarge the home and to rehabilitate existing buildings, and the number of patients was quickly increased to 172.

By act of Congress, March 4, 1923, appropriating the sum of \$645,000 further progress was made in the building program, so that housing facilities for approximately 425 patients became available in 1924, and steps were at once taken to hospitalize known lepers at large.

The act of February 3, 1917, authorizing and directing the Surgeon General of the Public Health Service to establish a leper home, designated that patients should be received under rules and regulations prepared by the Surgeon General with the approval of the Secretary of the Treasury, and that there should be received into the said home—

1. Any person afflicted with leprosy who presents himself or herself for care, detention, and treatment, or

2. Who may be apprehended under authority of the United States Quarantine acts, or

3. Any person afflicted with leprosy duly consigned to said home by the proper health authorities of any State, Territory, or the District of Columbia.

Therefore, upon request of these authorities, the Surgeon General of the Public Health Service is authorized to send for any person

afflicted with leprosy within the respective jurisdictions of the proper health authorities and to convey him to the leprosarium for detention and treatment.<sup>1</sup>

To contract leprosy is not a crime. It is, in most cases, unavoidable. Once a leper is in detention, however, it is a crime against society for him to abscond and subject his fellow human beings to the risk of contracting a malady that is practically incurable. To restrain such an individual is for the public good. This the law does with justice.

With few exceptions, the lepers at Carville are contented with their lot. In comfortable quarters located on a beautiful 358-acre tract of land, with good food, excellent medical and surgical attention and nursing, and a diversity of amusements, these unfortunates, the wards of the Government, are living out their lives without worry and in full realization of the fact that they are no longer a menace to the health and contentment of their fellow beings.

Leprosy was the first disease concerning which specific regulations were made in the United States regarding the transportation of infected persons. The Interstate Quarantine Regulations have provided rules for the safe transport of lepers since 1912. The revised regulations prescribe the following procedure:

**Sec. 5. Travel of lepers.**—Common carriers shall not accept for transportation or transport in interstate traffic any person known by them to be afflicted with leprosy, nor shall any person so afflicted accept such transportation except as hereinafter provided.

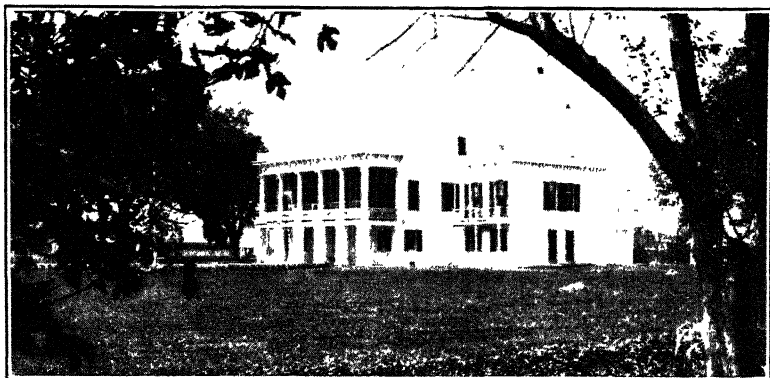
(a) A person afflicted with leprosy shall be permitted to accept transportation upon presentation of permits from the Surgeon General of the United States Public Health Service, or his accredited representative, and from the health authorities of the States, Territories, or District of Columbia to and from which he intends to travel, stating that such person may be received under such restrictions, which shall be specified in each instance, as will prevent the spread of the disease, provided such person shall have agreed in writing to comply, and does so comply, with the restrictions as specified.

(b) Any person who presents symptoms of leprosy and who is traveling or who has left the State where he resides in violation of the above regulations shall be detained, and, if proved to be a leper, shall be returned to such State or removed to such Federal station as the Secretary of the Treasury may designate, and the proper health authorities notified.

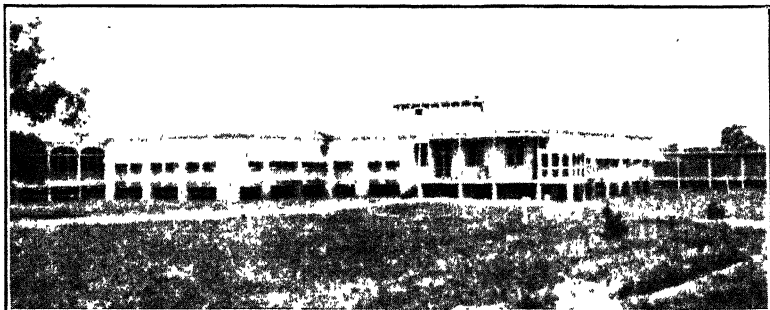
The Standard Railway Sanitary Code has practically the same restrictions relative to the transportation of lepers, as follows:

**Sec. 8. Leprosy.**—Common carriers shall not accept for transportation nor transport in any railway train, or other conveyance any person known to them to be afflicted with leprosy, unless such person presents permits from the Surgeon General of the United States Public Health Service or his accredited representative, and from the State department of health of the States from which and to which he is traveling, stating that such person may be received under such

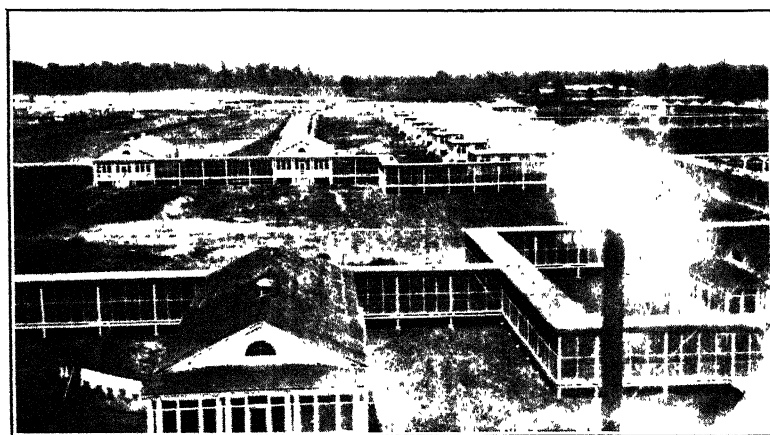
<sup>1</sup> The regulations governing the administration of the leprosarium were duly written, promulgated, and published in Public Health Reports for December 22, 1922.



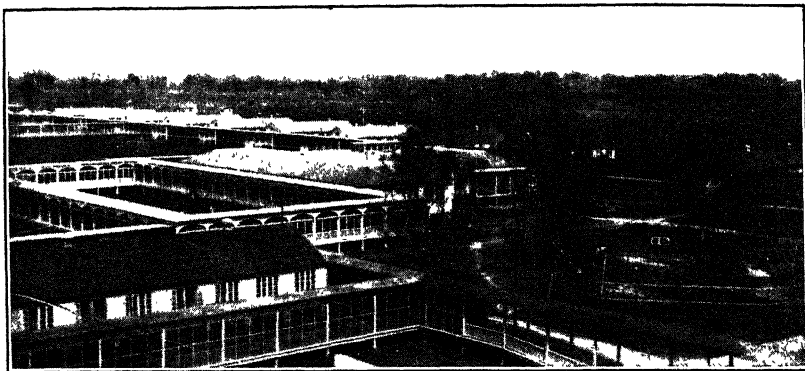
Administration building, formerly the plantation house



Patients' kitchen and mess hall



Some of the patients' cottages and site of proposed infirmary building



View of some of the patients' cottages; dining room in the foreground



Baseball on the patients' recreation field



Chinese New Year's masquerade party





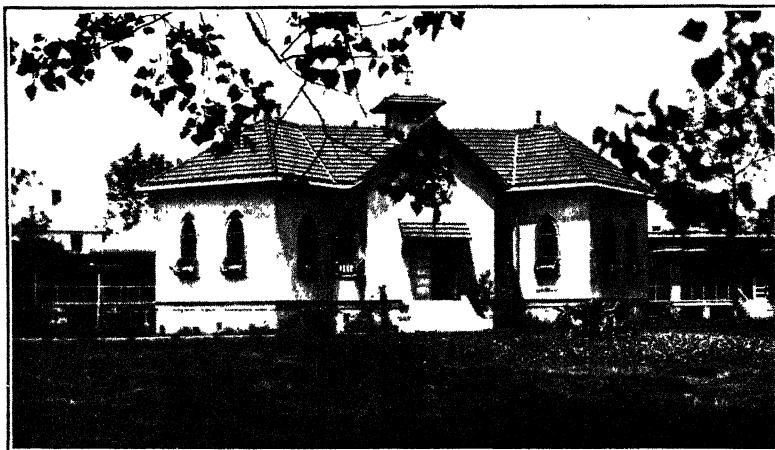
Patients' cottages. Part of campus, with oak and pecan trees



Clarification system for treating the Mississippi River water, and some of the warehouses and laundry buildings



The modern dairy barn



Catholic chapel



Protestant chapel

restrictions as will prevent the spread of the disease, and said restrictions shall be specified in each instance; and no person knowing or suspecting himself to be afflicted with leprosy, nor any person acting for him, shall apply for, procure, or accept transportation from any common carrier unless such permits have been received and are presented, and unless the person so afflicted agrees to comply and does so comply with the restrictions ordered.

After the necessary State permits are received, patients are transferred to the leprosarium accompanied by a medical officer of the Public Health Service. A compartment is provided for the patient, who is strictly isolated during the trip. All dishes and utensils are disinfected before leaving the compartment, all secretions or discharges are disinfected and properly disposed of, and the space occupied is disinfected upon being evacuated by the patient.

Isolation of lepers while being transported may be carried out with entire safety. Objection is often made by the railway officials to assigning space for this purpose. However, under the interstate quarantine regulations issued by the Secretary of the Treasury, a common carrier can not refuse space, if such be available. As now practiced by the Public Health Service, the transportation of lepers is effected without exposing the public to any danger of infection.

Since occupation of the home by the Public Health Service, the entire premises, portions of which were formerly heavily wooded swamp lands, have been reclaimed and placed under cultivation or used for pasturage. Extensive drainage has been completed, rendering the soil more valuable for farming purposes and effectually diminishing the mosquito nuisance which has been a menace in the past. Permanent gravel-surfaced roads have been built throughout the premises, rendering all parts accessible. A herd of dairy and beef cattle, selected stock from the United States Marine Hospital at Fort Stanton, N. Mex., has been transferred to the leprosarium and a modern dairy has been constructed, so that abundant dairy products are available. The live oaks, which are among the most beautiful in the State of Louisiana, are given the careful tree surgery to which they are entitled, and many similar shade trees have been planted for the permanent beautification of the grounds.

The property faces on the Mississippi River, facilitating the handling of freight by steamboats. The railroad station is located approximately 6 miles distant, the intervening country, being sparsely settled, furnishing some degree of isolation. The climate is sub-tropical, so that out-of-door life for the patients is possible during the entire year.

A typical cottage for patients consists of 12 private rooms, a recreation room, adequate bathing and toilet facilities, and two large screened verandas. The cottages are furnished with steam heat, hot and cold water, electric lights, and are well ventilated. The

purpose of such a cottage is to give each patient a room and surroundings which might be considered as his home. In order that the patients may conveniently pass from one building to another, each structure within the colony limits is connected with its neighbor by a screened, covered walk.

The present hospital proper consists of four wards set aside for male and female patients who may be suffering from advanced leprosy or from intercurrent diseases. Modern facilities are available for the care of such cases and include the following: A well-equipped surgery; dental laboratory; X-ray department; eye, ear, nose, and throat department; physiotherapy department; and a clinic set aside for experimental treatments. A well-equipped laboratory is maintained for routine clinical examinations, as well as for research purposes.

The kitchen is centrally located and so arranged that the food may be prepared by nonleprous personnel and then passed into the main dining room where the service is operated upon the cafeteria system. Dishes and all utensils which are used in the dining room are washed and sterilized in mechanical dish-washing machines, thereby reducing to a minimum the possibility of secondary or cross infection.

At stated intervals, physical and bacterioscopic examinations are made and patients showing clinical improvement are segregated, so far as possible, from their fellows. After repeated examinations, any leper who has shown clinical improvement for a year and has not within that time been found to be bacterioscopically a leper is placed under special observation for a period of two years, at the end of which time he is given final consideration. Should he successfully pass this final examination, he is recommended for parole and released subject to further examinations by his State health authorities once each six months for a period of three years. Should his condition continue to be satisfactory, he is given his final discharge as a case of arrested leprosy, no longer a menace to the public health.

The consensus of opinion among leprologists, as expressed in the resolutions of numerous conferences and in monographs on the subject, is that leprosy is a dangerous, communicable disease and that, in the light of our present knowledge, segregation of all lepers is essential to the complete eradication of the disease. The drastic action necessary to accomplish this problem of vital importance is not only handicapped in most countries of the world by the lack of adequate legislation for the complete isolation of lepers and the great difficulties to be overcome in breaking strong social ties and the customs of the lepers as individuals or classes, but by the prospective expenditure of tremendous sums of money with which to maintain the segregation.

It is recognized that each country is confronted with the solution of a leper problem, and that methods which appear to be applicable in one community are not practicable in another. Rigid segregation of all lepers in the United States is an ideal, the achievement of which, however, will call for some sacrifice.

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 What the United States Public Health Service is Doing to Prevent the Spread of Leprosy in Continental United States. By Edward R. Marshall, A. B., M. D. The Military Surgeon, October, 1923.

### CURRENT WORLD PREVALENCE OF DISEASE

REVIEW OF THE MONTHLY EPIDEMIOLOGICAL REPORT ISSUED MARCH 15, 1926,  
 BY THE HEALTH SECTION OF THE LEAGUE OF NATIONS' SECRETARIAT<sup>1</sup>

No serious influenza outbreaks occurred in Europe during the past winter, at least none to the end of February, according to the data made available by the Epidemiological Report issued March 15 by the health section of the League of Nations' Secretariat. The general mortality, which is a very sensitive index of any unusual prevalence of the more serious respiratory diseases, showed only a slight winter increase in most European cities, and in the cities of the British Isles it was unusually low. Recent mortality in some of the larger cities is given below:

*Mortality from all causes in certain European cities, by weeks, January 3-February 27, 1926*

City	Annual rate per 1,000 in the week ended—							
	January				February			
	9	16	23	30	6	13	20	27
105 English cities.....	14.5	13.6	15.2	14.2	13.6	12.7	14.2	13.2
London.....	14.0	13.7	15.9	14.5	12.1	12.2	13.8	12.8
Glasgow.....	19.9	17.4	17.2	15.7	16.4	15.7	15.7	18.2
Belfast.....	16.6	18.7	15.4	15.2	17.5	13.1	15.4	16.5
Stockholm.....	11.6	10.7	12.4	14.2	14.7	12.9	14.5	-----
Copenhagen.....	18.1	13.5	13.0	13.5	11.3	11.4	14.4	-----
46 German cities.....	11.3	10.3	11.6	11.9	11.8	11.8	-----	-----
Berlin.....	12.1	10.6	11.9	11.7	11.6	12.0	-----	-----
Warsaw.....	15.7	14.1	13.6	13.9	17.1	14.4	12.5	16.9
Paris <sup>1</sup> .....	14.9	15.1	15.6	-----	15.9	16.1	-----	-----

<sup>1</sup> Rates by 10-day periods.

The recent rise in mortality in United States cities reached its peak in the week ended March 27, when the rate for 68 large cities was 19.4. The following week the rate dropped to 17.7. Although prac-

<sup>1</sup> From the Statistical Office, U. S. Public Health Service.

tically all sections of the country have shown a marked increase in mortality, the southern cities, and particularly the southwestern, were affected first and the north Atlantic and New England cities were affected last. In most southern cities the maximum mortality was reported approximately one month earlier than in northern cities, such as Philadelphia, New York, and Boston.

*Plague.*—The Mediterranean area continued to be nearly free from human plague. Egypt reported only two cases of plague in the period from December 9 to March 13; one at Minia on March 4 and one at Alexandria on March 13. Unofficial sources reported two cases of plague in February at Heraclion, in Greece.

Plague deaths in India in the four weeks ended January 16 were 6,332, approximately 50 per cent higher than in the preceding four weeks, but were only slightly more than 50 per cent of the total in the corresponding four weeks a year ago. The Punjab and the United Provinces showed the principal increase, while the incidence of the disease diminished in the greater part of southern India. March and April are the months of maximum plague incidence in India, and present indications are that the plague situation will continue favorable during the first half of the current year.

In Madagascar, the number of plague cases declined from 400 in December to 334 in January and 277 in February, but the incidence in each of these months was somewhat higher than in the corresponding months of the preceding two years.

Guayaquil reported 34 cases of plague in January as compared with 21 in December and 10 in November.

*Cholera.*—"There are three principal centers of the disease" (cholera), says the report, "namely, the southern part of Madras Presidency, Bengal and neighboring districts in India, and the Menam Valley in Siam. In addition, a few Provinces in the Philippine Islands, chiefly those around the Bay of Manila, are infected. An epidemic also broke out in Cambodia, Indo-China, during February."

*Deaths from cholera in the Provinces of India*

Province	1925-26		1924-25
	Nov. 22- Dec. 19	Dec. 20- Jan. 16	Dec. 21- Jan. 17
Northwest frontier.....	0	0	0
Kashmir.....	0	0	20
Punjab.....	0	0	0
Delhi.....	0	0	0
United Provinces.....	694	27	1
Bihar and Orissa.....	245	222	131
Bengal Presidency.....	1,666	1,377	1,405
Assam.....	256	95	209
Central Provinces.....	0	0	0
Madras Presidency.....	3,241	4,408	4,624
Hyderabad State.....	0	0	0
Bombay Presidency.....	0	0	29
Burma.....	56	25	157
Other Indian States.....	0	0	9
Total.....	6,158	6,054	5,985

In Siam, the number of cases of cholera declined from 1,043 in the two weeks ended December 5 to 764 in the following two weeks, and gradually reached the low figure of 225 in the two weeks ended February 13. According to the Epidemiological Report, "It is not unlikely that a fresh increase will occur in March and April, as May is the usual month of maximum cholera incidence in Siam."

The sudden cholera outbreak in French Indo-China resulted in 958 cases in February, of which 893 were in Cambodia, 60 in Annam, and 5 in Cochin-China.

*Smallpox.*—The incidence of smallpox in northern England declined during February and the first half of March; 411 cases were reported in the two weeks ended March 13 as compared with 727 in the two weeks ended January 30, the peak of the outbreak.

On the European Continent, very little smallpox has been reported in recent months, and the situation is more favorable than a year ago. In Switzerland there were only 11 cases during the four weeks ended February 27, compared with 70 and 333 cases, respectively, during the corresponding periods of the two preceding years. In Spain, only 51 deaths were reported in December, 1925, compared with 252 in December, 1924. "Only 38 cases were reported during December in the Ukraine, and 103 cases during November in the remainder of European Russia, which are probably the lowest returns on record," states the report. In France, the number of cases declined from 85 in November to 39 in February. Only occasional, sporadic cases were reported in the remainder of Europe.

The number of cases of smallpox declined during January and February in Egypt, Algeria, and Tunisia. The disease appears to be only slightly prevalent in the remainder of Africa at the present time.

In the United States, smallpox has been much less prevalent the past winter than a year ago. An outbreak of mild smallpox occurred in Florida in January. The majority of cases were reported in Miami, Tampa, and Jacksonville. A severe outbreak of virulent smallpox occurred in Los Angeles. There were 498<sup>1</sup> cases reported in January and February and 85 deaths, indicating a fatality of about 17 per cent. The number of new cases had declined in the second half of March, but the fatality rate was still high.

In India, where smallpox has been unusually epidemic for some months past, the incidence continued to increase during January, and more than twice as many cases were reported in that month as were reported in the corresponding month of any of the preceding five years. The outbreak is most severe in Orissa, where there were 8,091 cases and 1,564 deaths during the four weeks ended February 6.

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<sup>1</sup> Later reports show 307 cases of smallpox in Los Angeles in January and February, 1926.—Ed.

*Deaths from smallpox in the Provinces of India*

Province	1925	1926	1925
	Dec. 6-Jan. 2	Jan. 3-30	Jan. 4-31
Northwest frontier.....	119	111	7
Punjab.....	719	904	150
Delhi.....	0	0	0
United Provinces.....	73	296	59
Bihar and Orissa.....	1,152	2,089	493
Bengal Presidency.....	414	621	587
Assam.....	101	91	25
Central Provinces.....	82	190	133
Madras Presidency.....	138	218	517
Hyderabad State.....	34	0	2
Bombay Presidency.....	170	330	312
Burma.....	39	99	114
Other Indian States.....	27	47	21
Total.....	3,068	4,946	2,420

*Enteric fever.*—The incidence of enteric fever in most European countries continued lower during January and February than during the same period of the preceding two years.

In Japan, a considerable increase in the cases of enteric fever took place at the beginning of the year, "due to epidemic outbreaks in the Provinces of Fukuoka and Kumamoto in the southern island of Kiusku and at Tokio." From January 1 to February 20, the cases for the whole of Japan numbered 8,182, as compared with 5,134 during the corresponding period of 1925.

*Lethargic encephalitis.*—In the few countries reporting on lethargic encephalitis, no change in the incidence of the disease was indicated during January and February. A somewhat lower incidence than in the previous year was reported by England and Wales, Denmark, Sweden, Italy, and the United States.

*Scarlet fever.*—"The incidence of scarlet fever diminished slowly during February in most European countries, the decline being greatest in southern Europe," states the report.

*Diphtheria.*—Diphtheria was less prevalent during the past winter than in the winter of 1924-25 in Scandinavia, Germany, the Netherlands, Belgium, and Italy, but somewhat more prevalent in Czechoslovakia, Hungary, Bulgaria, and the Kingdom of the Serbs, Croats, and Slovenes.

*Measles.*—Measles has been epidemic in a number of European countries during the past winter, and the February reports for many of the countries did not indicate whether or not the maximum incidence had been reached. In Denmark and Bulgaria, the maximum incidence seems to have occurred in January, while in Hungary the peak seems to have occurred in November.

*Mortality in the city of Moscow.*—A special note in the Epidemiological Report for March gives some interesting statistics on mortality in the city of Moscow in recent years.



The death rate for the city indicates a marked improvement in health conditions during the last three years as compared with the immediately preceding years or with the pre-war years. The general death rate per 1,000 inhabitants was 27.0 in 1901-1910 and 22.7 in 1911, and during the typhus epidemics it rose to 45.1 in 1919 and 41.4 in 1920. Since 1920 it has declined, as shown in the following annual rates: 26.3 in 1921, 29.0 in 1922, 14.7 in 1923, 15.8 in 1924, and 14.7 for the first 10 months of 1925.

A comparison of the age distribution of the population of Moscow with that of Paris and London shows that Moscow has a comparatively larger proportion in the young adult ages and a much smaller proportion in the ages over 60. If these facts are taken into consideration and the total death rates of Moscow and Paris are standardized according to the age distribution of London, the resulting death rate for Moscow is 17.5 (instead of the crude rate of 14.7) and for Paris is 16.8 (instead of 14.8). On this basis the Moscow rate is slightly higher than the Paris rate and much higher than the 11.4 rate for London.

The mortality in specific age groups is compared with that of London and Paris. The most striking difference in the cities is the much higher death rate among the children under 5 years of age in Moscow than in either London or Paris. Moscow also reported a much lower death rate for the ages 60 and over than London or Paris.

*Death rates per 1,000 inhabitants, by age, in Moscow, London, and Paris*

Age	Moscow, 1923	London, 1923	Paris, 1921	Age	Moscow, 1923	London, 1923	Paris, 1921
0-4.....	84.2	22.0	58.3	40-49.....	11.6	8.0	10.4
5-9.....	5.8	2.2	5.3	50-59.....	18.8	16.1	19.3
10-19.....	3.7	2.0	4.4	60 and over.....	44.4	58.5	57.2
20-29.....	4.8	3.1	6.0	All ages.....	14.7	11.4	14.8
30-39.....	6.7	4.3	7.1				

A marked improvement in the epidemic situation in Moscow is shown by the decline during 1923 and 1924 in the number of deaths from the more serious epidemic diseases such as typhus, relapsing fever, dysentery, and smallpox. Mortality from tuberculosis also declined and a reduction in the number of deaths due to violence other than suicide and homicide contributed no little to the lowering of the total number of deaths.

*Deaths from certain causes in the city of Moscow, 1922-1924*

Cause of death	1922	1923	1924
Typhus.....	3,283	102	27
Relapsing fever.....	2,651	37	2
Enteric fever.....	539	161	211
Cholera.....	156	0	0
Dysentery.....	1,621	247	352
Smallpox.....	170	24	5
Scarlet fever.....	769	696	1,508
Measles.....		430	1,061
Tuberculosis.....	3,599	2,849	2,831
Violence other than suicide and homicide.....	2,374	748	717

**PUBLIC HEALTH ENGINEERING ABSTRACTS**

**Use of Malaria School Census Card.** L. M. Fisher. *Public Health Bulletin* No. 156 (U. S. Public Health Service), pp. 72-84. (Abstracted by L. D. Fricks.)

Sixty-five thousand malaria school census cards were sent out by the State health department of South Carolina during 1922 and 1923. The cards were mailed to the school-teachers, who distributed them to the pupils. The pupils took the cards home and the information was supplied by the parents. The cards were then returned to the teacher and mailed to the State health department. Ten thousand and eighty-five cards were returned. Thirteen per cent of the rural population of the State was included in this census. Thirteen per cent of those included in the census of 1922 were reported as having malaria, and 6.15 per cent in the census of 1923. The chief advantages claimed for the malaria school census card are its cheapness, ease of employment, its ability to locate malaria foci and show the general distribution of malaria, and its value in stimulating interest in malaria and malaria control.

**A Program of a County Organization for Anti-Malaria Work.** W. G. Smillie. *Public Health Bulletin* No. 156, pp. 32-43. (Abstracted by L. D. Fricks.)

This program is based on the county health unit as it is constituted in the Southern States. The first step in carrying out the program is that of determining the distribution of malaria in the county by case reports collected through various channels and analyzed, and by malaria mosquito surveys. The collection of this information accurately will consume much time. When collected it should be spotted on the county map. Certain precautions which should be taken by the county health officer in carrying out control measures are outlined, such as the charging of drainage expenditures against the county health budget.

**Spore-Bearing Gas-Formers in the Ohio River at Cincinnati.** Henry Sohn. *Fourth Annual Report of Ohio Conference on Water Purification*, November, 1924, pp. 85-89. (Abstracted by R. E. Thompson.)

Of 99 samples of Ohio River water examined for spore-bearing gas formers during period March–October, 1924, 21 were found to contain such organisms. Of these unpurified cultures, 18 were capable of growing aerobically and 16 grew anaerobically. Only 6 of the 21 positive mixed cultures survived plating and purifying processes and proved capable of fermenting lactose. All 6 were spore bearers and 4 of them grew aerobically. The remaining 15 positive cultures were apparently due to symbiotic growth of spore-bearing types. The rate of gas formation by the spore-bearing types encountered was too slow to cause serious interference with gas production by colon group organisms. During the same period 85 per cent of routine presumptive positive tests on Ohio River water were confirmed when subjected to usual confirmatory tests for *B. coli*.

**The Bacterial Content of Ice Cream.** A. E. Fay and N. E. Olson. Kansas Agriculture Experiment Station, Manhattan, Kansas. *Journal of Dairy Science*, Vol. 7, No. 4, July, 1924, pp. 330–356. (Abstracted by R. E. Tarbett.)

In the introduction the authors call attention to the enormous increase in the production of ice cream in the United States—80,000,000 gallons consumed in 1909 and 260,000,000 gallons in 1920, an increase of 225 per cent. Increased demand has brought about improved methods of manufacture as well as regulatory laws. A few attempts have been made to regulate the bacterial content of ice cream. Data, however, upon which a fair bacterial standard might be based are very limited.

A rather complete review of the literature covering bacteriological examinations of ice cream is given.

The experiment carried on by the authors was for the purpose of studying the factors affecting the bacterial content of ice cream and the possibilities of producing a cream with low count under commercial conditions, the ultimate object being the establishment of a bacterial standard. The experiments were carried on in a plant having an average output of 200 gallons of ice cream per day. The plant methods, preparation of mix, pasteurization, homogenization, aging, freezing, and bacteriological methods are described. Pasteurization of the mix was, for the most part, at 150° F. for 30 minutes. Some variations were made both as to temperature and time, the temperature variations being between 140° and 152°, and the time from 20 to 30 minutes.

In all, 28 runs were made; the first 8 followed the customs and practices of the plant and the remainder were under the direct supervision of the authors. The average results are as follows:

(The results are expressed in total bacteria per gram as determined by standard agar plate counts incubated 24 hours at 37.5° C.)

Mix before pasteurizing (calculated) (determined from the mix before the butter was added and from the butter), 17,261,926; after pasteurizing, 219,953; after homogenizing, 277,475; before aging, 191,782; before freezing, 192,362; after freezing, 236,688, and after hardening 48 hours, 186,320.

The average bacterial count of the finished product for the runs not supervised was 617,357 bacteria per gram as against 35,432 for the supervised runs.

Considerable space is devoted to analyses of the results obtained in each step of the process, together with the effect upon three types of bacteria producing acid and gas with lactose and liquifying gelatin.

Eleven conclusions are given, the most important one being that it is possible and practicable consistently to produce ice cream containing less than 100,000 bacteria per gram by pasteurizing at 150° F. for 30 minutes and by using utensils that have been thoroughly cleansed and steamed.

**Memphis Surveys Its Milk Supply.** Anon. *Nation's Health*, Vol. 8, No. 1, January, 1926, p. 55. (Abstracted by W. E. Hardenbergh.)

Results of an investigation carried on at Memphis, Tenn., showed that of the 364 families studied, 49.5 per cent obtained their supply directly from dairymen, 35.5 per cent from grocery stores, and the remainder from neighbors or unknown sources; 1.8 per cent used canned milk only, and 8 per cent used no milk at all. The per capita consumption for the entire city has increased from 0.51 pint in 1921 to 0.72 in 1924.

About 50 per cent of the Memphis supply is pasteurized. The average bacterial count of pasteurized milk decreased from 684,200 per c. c. in 1921 to 117,000 per c. c. in 1924. The bacteriological count of raw milk declined from 1,631,000 per c. c. in 1921 to 113,000 in 1924.

In an effort to increase the quality of milk, the department of health began, in 1923, to publish the milk scores of every distributor. The results of this action are not stated, but the average score increased from 70 to 81 for pasteurized and raw milk, respectively, in 1923, to 85 and 86 in 1924.

## DEATH RATES IN A GROUP OF INSURED PERSONS

### RATES FOR PRINCIPAL CAUSES OF DEATH FOR FEBRUARY, 1926

The accompanying table is taken from the Statistical Bulletin for March, 1926, published by the Metropolitan Life Insurance Co., and presents the mortality experience of the industrial insurance department of the company for February, 1926, as compared with

January and with February and year 1925. The rates are based on a strength of approximately 17,000,000 insured persons in the industrial populations of the United States and Canada.

The death rate in this group of persons for February, 1926, was 9.8 per 1,000, the same as that reported for January of this year and somewhat lower than that for February a year ago (10.3 per 1,000).

With the exception of measles, influenza, and fatalities due to automobile accidents, the February record is favorable. The measles mortality is running exceptionally high. The rise began in December, when there was an increase in the rate to 4.3 from 1.7 per 100,000 in November, and was exceptionally sharp in January and February—9.5 and 13 per 100,000, respectively.

While the death rate for influenza rose 37 per cent higher than the January rate, and was 11 per cent above that for February, 1925, there was no increase in pneumonia in February.

The number of automobile fatalities for both January and February of this year exceeds the number for the corresponding months of 1925.

*Death rates (annual basis) for principal causes per 1,000 lives exposed, January and February, 1926, and February and year, 1925*

[Industrial department, Metropolitan Life Insurance Co.]

Cause of death	Rate per 100,000 lives exposed <sup>1</sup>			
	February, 1926	January, 1926	February, 1925	Year 1925 <sup>2</sup>
Total, all causes.....	982.7	981.2	1,027.0	906.9
Typhoid fever.....	2.6	3.9	2.6	4.6
Measles.....	13.0	9.5	2.1	3.3
Scarlet fever.....	4.6	4.0	4.2	3.5
Whooping cough.....	7.4	6.6	7.0	7.7
Diphtheria.....	9.6	11.2	11.8	10.6
Influenza.....	37.0	27.1	33.3	21.9
Tuberculosis (all forms).....	98.3	91.0	105.1	98.0
Tuberculosis of respiratory system.....	87.3	81.4	93.9	85.8
Cancer.....	69.1	69.7	72.0	70.5
Diabetes mellitus.....	15.8	17.6	17.0	15.2
Cerebral hemorrhage.....	59.6	60.0	62.3	53.5
Organic diseases of heart.....	144.2	147.0	148.0	126.6
Pneumonia (all forms).....	137.6	138.0	139.7	88.5
Other respiratory diseases.....	15.9	15.9	18.1	13.3
Diarrhea and enteritis.....	15.0	17.0	19.4	36.6
Bright's disease (chronic nephritis).....	78.8	74.8	84.6	69.3
Fuerperal state.....	14.5	14.3	18.7	16.5
Suicides.....	5.6	7.5	7.3	6.9
Homicides.....	4.9	7.2	6.1	7.2
Other external causes (excluding suicides and homicides).....	52.4	59.2	56.4	64.2
Traumatism by automobiles.....	11.2	13.6	8.2	16.5
All other causes.....	196.8	199.6	210.9	190.5

<sup>1</sup> All figures include infants insured under 1 year of age.

<sup>2</sup> Based on provisional estimate of lives exposed to risk in 1925.

## HEALTH EXHIBITION IN THE NETHERLANDS EAST INDIES

Official announcement has been made of a health exhibition to be held at Bandoeng, Java, the Netherlands East Indies, during June and July, 1927.

The exhibits are classified in four divisions, as follows:

*First division.*—(1) Historical development of hygiene and (2) medical exhibits of institutes, laboratories, educational institutions, and libraries, and exhibits relating to health organizations, their aims, activities, and results accomplished.

*Second division.*—Grouping of diseases of world-wide prevalence and of tropical diseases, showing in the latter exhibit the physical effects of certain bacteria, fungi, and protozoa.

*Third division.*—Applied hygiene, including water supplies, sewage disposal and treatment, garbage removal, drainage, housing, lighting and ventilation, regulation of foods and drinks, prevention of epidemics, work of public health services, transportation, school hygiene, industrial hygiene, zoning and city planning, child welfare, veterinary hygiene as related to man, hospitals, and public health education.

*Fourth division.*—Exhibits, by commercial firms, of medical and sanitary supplies.

Foreign exhibits are sought for each group, including explanatory literature, photographs, drawings, models, statistics, samples, etc.

The public health service of the Netherlands East Indies Government will participate in the exhibition by means of a separate exhibit.

## DEATHS DURING WEEK ENDED MAY 1, 1926

*Summary of information received by telegraph from industrial insurance companies for week ended May 1, 1926, and corresponding week of 1925. (From the Weekly Health Index, May 4, 1926, issued by the Bureau of the Census, Department of Commerce.)*

	Week ended May 1, 1926	Correspond- ing week 1925
Policies in force.....	63, 923, 127	59, 640, 913
Number of death claims.....	15, 346	12, 172
Death claims per 1,000 policies in force, annual rate..	12. 5	10. 6

Deaths from all causes in certain large cities of the United States during the week ended May 1, 1926, infant mortality, annual death rate, and comparison with corresponding week of 1925. (From the Weekly Health Index, May 4, 1926, issued by the Bureau of the Census, Department of Commerce)

City	Week ended May 1, 1926		Annual death rate per 1,000 corresponding week 1925	Deaths under 1 year		Infant mortality rate, week ended May 1, 1926 <sup>1</sup>
	Total deaths	Death rate <sup>2</sup>		Week ended May 1, 1926	Corresponding week, 1925	
Total (69 cities).....	7,989	14.4	13.7	945	855	76
Akron.....	38			11	4	117
Albany.....	32	14.2	18.1	1	0	21
Atlanta.....	73			8	6	
White.....	39			6		
Colored.....	34	( <sup>3</sup> )		2		
Baltimore.....	252	16.5	15.5	29	24	85
White.....	194			22		73
Colored.....	58	( <sup>3</sup> )		7		114
Birmingham.....	71	18.0	19.8	12	13	
White.....	28			6		
Colored.....	43	( <sup>3</sup> )		6		
Boston.....	236	15.8	15.7	36	30	101
Bridgeport.....	43			4	4	68
Buffalo.....	160	15.5	15.2	27	18	113
Cambridge.....	30	13.1	18.7	2	7	32
Camden.....	27	10.9	13.0	4	1	68
Chicago.....	723	12.6	12.6	67	84	89
Cincinnati.....	166	21.1	16.1	22	14	137
Cleveland.....	237	13.2	11.4	35	32	91
Columbus.....	83	15.5	11.0	7	5	64
Dallas.....	51	13.7	13.5	7	7	
White.....	36			6		
Colored.....	15	( <sup>3</sup> )		1		
Dayton.....	49	14.8	12.4	3	3	47
Denver.....	85	15.8	16.0	12	8	
Des Moines.....	29	10.1	10.5	0	1	0
Detroit.....	326	13.6	11.8	65	55	105
Duluth.....	34	16.0	12.3	1	2	23
El Paso.....	42	20.9	17.4	10	8	
Erie.....	35			4	1	74
Fall River.....	32	12.9	14.6	9	3	131
Flint.....	28	11.2	5.2	6	1	99
Fort Worth.....	46	15.7	12.0	7	3	
White.....	38			7		
Colored.....	8	( <sup>3</sup> )		0		
Grand Rapids.....	34	11.5	9.2	7	1	101
Houston.....	59	18.7	16.4	7	10	
White.....	38			6		
Colored.....	21	( <sup>3</sup> )		1		
Indianapolis.....	108	15.7	14.4	12	10	88
White.....	81			10		94
Colored.....	27			2		110
Jacksonville, Fla.....	35	17.4	15.9	7	5	143
White.....	18			6		136
Colored.....	17			1		57
Jersey City.....	79	13.1	11.4	8	9	35
Kansas City, Kans.....	24	10.3	14.8	2	5	30
White.....	17			0		0
Colored.....	7	( <sup>3</sup> )		2		263
Kansas City, Mo.....	120	17.0	12.1	14	5	
Los Angeles.....	239			18	21	50
Louisville.....	99	17.1	11.6	6	6	52
White.....	76			5		50
Colored.....	23	( <sup>3</sup> )		1		63
Lowell.....	33	15.6	19.9	4	6	74
Lynn.....	20	10.1	12.6	3	6	75
Memphis.....	56	16.7	18.8	2	6	
White.....	27			1		
Colored.....	29	( <sup>3</sup> )		1		
Millwaukee.....	115	12.0	12.5	23	24	107
Minneapolis.....	111	13.6	11.2	9	9	50
Nashville.....	47	18.0	17.6	3	6	
White.....	27			3		
Colored.....	20	( <sup>3</sup> )		1		
New Bedford.....	36	15.7	12.6	5	4	87
New Haven.....	50	14.6	11.4	5	3	68

Footnotes at end of table.

Deaths from all causes in certain large cities of the United States during the week ended May 1, 1926, infant mortality, annual death rate, and comparison with corresponding week of 1925. (From the Weekly Health Index, May 4, 1926, issued by the Bureau of the Census, Department of Commerce)—Continued

City	Week ended May 1, 1926		Annual death rate per 1,000 corresponding week 1925	Deaths under 1 year		Infant mortality rate, week ended May 1, 1926
	Total deaths	Death rate		Week ended May 1, 1926	Corresponding week, 1925	
New Orleans.....	115	14.5	17.2	8	17	-----
White.....	64			2		-----
Colored.....	51	( <sup>1</sup> )		6		-----
New York.....	1,535	13.6	14.0	195	172	79
Bronx Borough.....	152	9.1	10.2	11	9	36
Brooklyn Borough.....	494	11.7	12.6	65	65	60
Manhattan Borough.....	701	18.8	18.7	94	82	104
Queens Borough.....	142	10.4	9.3	21	13	95
Richmond Borough.....	46	17.3	18.1	4	3	79
Newark, N. J.....	88	10.1	11.9	11	8	53
Norfolk.....	35			4	1	74
White.....	17			1		30
Colored.....	18	( <sup>1</sup> )		3		149
Oakland.....	51	10.5	11.1	4	9	46
Oklahoma City.....	25			2	1	-----
Omaha.....	52	12.8	12.8	3	4	31
Paterson.....	47	17.3	9.9	0	6	0
Philadelphia.....	574	15.1	13.7	62	50	82
Pittsburgh.....	184	15.2	18.2	29	24	96
Portland, Oreg.....	58	10.7	12.0	2	5	20
Providence.....	63	12.3	11.7	11	5	91
Richmond.....	62	17.3	15.7	10	6	126
White.....	35			6		118
Colored.....	27	( <sup>1</sup> )		4		140
Rochester.....	87	14.3	13.0	9	10	72
St. Louis.....	260	16.5	14.0	20	11	-----
St. Paul.....	57	12.1	15.0	2	6	18
Salt Lake City.....	25	10.0	11.5	3	1	41
San Antonio.....	58	15.3	10.8	13	9	-----
San Diego.....	45	22.1	18.7	3	4	63
San Francisco.....	169	15.8	14.1	5	9	30
Schnectady.....	23	12.9	9.6	5	5	144
Seattle.....	67			3	5	28
Somerville.....	33	17.4	7.9	4	0	104
Spokane.....	37	17.7	12.0	1	0	23
Springfield, Mass.....	42	15.4	13.9	5	6	72
Syracuse.....	53	15.2	14.6	6	3	76
Tacoma.....	25	12.5	14.5	0	2	0
Toledo.....	92	16.7	12.0	10	8	97
Trenton.....	47	18.6	12.6	3	1	50
Utica.....	39	20.0	19.0	3	9	66
Washington, D. C.....	137	14.3	14.8	17	13	97
White.....	82			10		83
Colored.....	55	( <sup>1</sup> )		7		128
Waterbury.....	31			6	3	120
Wilmington, Del.....	36	15.4	11.5	5	2	117
Worcester.....	73	20.0	16.9	10	5	115
Yonkers.....	17	7.8	10.6	3	0	67
Youngstown.....	40	13.0	18.9	4	11	51

<sup>1</sup> Annual rate per 1,000 population.

<sup>2</sup> Deaths under 1 year per 1,000 births. Cities left blank are not in the registration area for births.

<sup>3</sup> Data for 64 cities.

<sup>4</sup> Deaths for week ended Friday, Apr. 30, 1926.

<sup>5</sup> In the cities for which deaths are shown by color, the colored population in 1920 constituted the following percentages of the total population: Atlanta, 31, Baltimore 15, Birmingham 39, Dallas 15, Fort Worth 14, Houston 25, Kansas City, Kans., 14, Louisville 17, Memphis 33, Nashville 30, New Orleans 26, Norfolk 33, Richmond 32, and Washington, D. C., 25.



# PREVALENCE OF DISEASE

*No health department, State or local, can effectively prevent or control disease without knowledge of when, where, and under what conditions cases are occurring*

## UNITED STATES

### CURRENT WEEKLY STATE REPORTS

These reports are preliminary, and the figures are subject to change when later returns are received by the State health officers

#### Reports for Week Ended May 8, 1926

ALABAMA		ARKANSAS--continued	
	Cases		Cases
Cerebrospinal meningitis.....	1	Mumps.....	29
Chicken pox.....	35	Pellagra.....	18
Diphtheria.....	12	Scarlet fever.....	28
Influenza.....	47	Smallpox.....	10
Malaria.....	29	Trachoma.....	1
Measles.....	325	Tuberculosis.....	11
Mumps.....	61	Typhoid fever.....	3
Ophthalmia neonatorum.....	1	Whooping cough.....	52
Pellagra.....	30		
Pneumonia.....	68	CALIFORNIA	
Polio myelitis.....	1	Cerebrospinal meningitis:	
Scarlet fever.....	18	Los Angeles.....	1
Smallpox.....	35	San Benito County.....	1
Tetanus.....	1	Chicken pox.....	221
Tuberculosis.....	58	Diphtheria.....	104
Typhoid fever.....	6	Influenza.....	20
Whooping cough.....	31	Measles.....	457
		Mumps.....	270
ARIZONA		Polio myelitis--Alhambra.....	1
Chicken pox.....	4	Scarlet fever.....	117
Diphtheria.....	2	Smallpox:	
Influenza.....	3	Los Angeles.....	17
Leprosy.....	1	Scattering.....	16
Measles.....	2	Typhoid fever.....	15
Mumps.....	3	Whooping cough.....	64
Pneumonia.....	1		
Scarlet fever.....	4	COLORADO	
Smallpox.....	1	Actinomycosis.....	1
Trachoma.....	1	Chicken pox.....	23
Tuberculosis.....	29	Diphtheria.....	14
Whooping cough.....	1	German measles.....	6
		Influenza.....	7
ARKANSAS		Measles.....	58
Chicken pox.....	33	Mumps.....	9
Dengue.....	8	Ophthalmia neonatorum.....	2
Diphtheria.....	2	Pneumonia.....	4
Hookworm disease.....	1	Scarlet fever.....	32
Influenza.....	81	Smallpox.....	3
Malaria.....	32	Tuberculosis.....	29
Measles.....	61	Whooping cough.....	79

CONNECTICUT		ILLINOIS	
	Cases		Cases
Cerebrospinal meningitis.....	1	Cerebrospinal meningitis:	
Chicken pox.....	61	Cook County.....	1
Conjunctivitis (infectious).....	1	La Salle County.....	1
Diphtheria.....	25	Rock Island County.....	1
German measles.....	121	Saline County.....	2
Influenza.....	9	Diphtheria.....	68
Lethargic encephalitis.....	1	Influenza.....	51
Malaria.....	1	Lethargic encephalitis—Cook County.....	1
Measles.....	711	Measles.....	1,167
Mumps.....	9	Pneumonia.....	374
Pneumonia (broncho).....	42	Polioomyelitis:	
Pneumonia (lobar).....	54	Lake County.....	1
Scarlet fever.....	78	La Salle County.....	1
Tuberculosis (pulmonary).....	24	Scarlet fever.....	336
Typhoid fever.....	3	Smallpox:	
Whooping cough.....	55	Cook County.....	13
		Saline County.....	14
		Scattering.....	21
		Tuberculosis.....	500
		Typhoid fever.....	5
		Whooping cough.....	193
DELAWARE		INDIANA	
Chicken pox.....	3	Chicken pox.....	37
Diphtheria.....	2	Diphtheria.....	10
Measles.....	56	Influenza.....	28
Pneumonia.....	1	Measles.....	1,077
Scarlet fever.....	14	Mumps.....	1
Whooping cough.....	2	Pneumonia.....	16
		Scarlet fever.....	150
		Smallpox.....	75
		Tuberculosis.....	37
		Whooping cough.....	145
DISTRICT OF COLUMBIA		KANSAS	
Chicken pox.....	14	Cerebrospinal meningitis:	
Diphtheria.....	22	Junction City.....	1
Measles.....	484	Kansas City.....	1
Pneumonia.....	39	Chicken pox.....	77
Scarlet fever.....	22	Diphtheria.....	7
Smallpox.....	1	German measles.....	21
Tuberculosis.....	23	Influenza.....	17
Typhoid fever.....	1	Measles.....	851
Whooping cough.....	33	Mumps.....	52
		Pneumonia.....	20
		Scarlet fever.....	76
		Smallpox.....	14
		Tuberculosis.....	35
		Typhoid fever.....	2
		Whooping cough.....	127
FLORIDA		LOUISIANA	
Chicken pox.....	36	Diphtheria.....	12
Dengue.....	1	Influenza.....	22
Diphtheria.....	17	Malaria.....	38
German measles.....	3	Measles.....	57
Influenza.....	7	Pellagra.....	8
Malaria.....	6	Pneumonia.....	57
Measles.....	99	Scarlet fever.....	24
Mumps.....	31	Smallpox.....	17
Pneumonia.....	6	Tuberculosis.....	65
Scarlet fever.....	8	Typhoid fever.....	14
Smallpox.....	70	Whooping cough.....	7
Tuberculosis.....	10		
Typhoid fever.....	11		
Whooping cough.....	47		
GEORGIA		MAINE	
Chicken pox.....	19	Cerebrospinal meningitis.....	1
Diphtheria.....	9	Chicken pox.....	19
Dysentery.....	2	Diphtheria.....	1
Hookworm disease.....	24		
Influenza.....	48		
Malaria.....	24		
Measles.....	140		
Mumps.....	39		
Pellagra.....	8		
Pneumonia.....	51		
Scarlet fever.....	8		
Septic sore throat.....	10		
Smallpox.....	15		
Tuberculosis.....	27		
Typhoid fever.....	9		
Whooping cough.....	25		

## MAINE—continued

	Cases
German measles.....	90
Glanders.....	3
Influenza.....	149
Measles.....	407
Mumps.....	22
Pneumonia.....	29
Scarlet fever.....	29
Tuberculosis.....	5
Typhoid fever.....	1
Vincent's angina.....	7
Whooping cough.....	22

MARYLAND<sup>1</sup>

Cerebrospinal meningitis.....	1
Chicken pox.....	63
Diphtheria.....	16
German measles.....	2
Impetigo contagiosa.....	1
Influenza.....	17
Measles.....	474
Mumps.....	279
Ophthalmia neonatorum.....	1
Pneumonia (broncho).....	54
Pneumonia (lobar).....	65
Scarlet fever.....	64
Septic sore throat.....	2
Tetanus.....	3
Tuberculosis.....	65
Typhoid fever.....	3
Typhus fever.....	1
Whooping cough.....	76

## MASSACHUSETTS

Actinomycosis.....	1
Cerebrospinal meningitis.....	3
Chicken pox.....	81
Conjunctivitis (suppurative).....	5
Diphtheria.....	58
German measles.....	509
Influenza.....	35
Lethargic encephalitis.....	3
Measles.....	831
Mumps.....	134
Ophthalmia neonatorum.....	42
Pneumonia (lobar).....	140
Poliomyelitis.....	1
Scarlet fever.....	197
Trachoma.....	1
Tuberculosis (pulmonary).....	142
Tuberculosis (other forms).....	25
Typhoid fever.....	8
Whooping cough.....	278

## MICHIGAN

Diphtheria.....	115
Measles.....	2,180
Pneumonia.....	213
Scarlet fever.....	357
Smallpox.....	16
Tuberculosis.....	78
Typhoid fever.....	7
Whooping cough.....	222

## MINNESOTA

	Cases
Chicken pox.....	119
Diphtheria.....	47
Influenza.....	7
Measles.....	768
Pneumonia.....	2
Scarlet fever.....	343
Smallpox.....	13
Tuberculosis.....	60
Typhoid fever.....	2
Whooping cough.....	55

## MISSISSIPPI

Diphtheria.....	7
Influenza.....	293
Scarlet fever.....	4
Smallpox.....	24
Typhoid fever.....	8

## MISSOURI

Cerebrospinal meningitis.....	1
Chicken pox.....	49
Diphtheria.....	66
Epidemic sore throat.....	1
Influenza.....	7
Measles.....	1,674
Pneumonia.....	8
Rabies.....	8
Scarlet fever.....	265
Smallpox.....	10
Tuberculosis.....	21
Typhoid fever.....	5
Whooping cough.....	70

## MONTANA

Cerebrospinal meningitis.....	2
Chicken pox.....	33
Diphtheria.....	1
German measles.....	13
Measles.....	166
Mumps.....	8
Rocky Mountain spotted fever:	
Bonita.....	1
Jordan.....	2
Scarlet fever.....	50
Smallpox.....	10
Tuberculosis.....	7
Whooping cough.....	14

## NEBRASKA

Chicken pox.....	34
Diphtheria.....	3
German measles.....	4
Influenza.....	33
Measles.....	154
Mumps.....	6
Scarlet fever.....	98
Smallpox.....	16
Tuberculosis.....	2
Typhoid fever.....	2
Whooping cough.....	28

<sup>1</sup> Week ended Friday.

NEW JERSEY		OKLAHOMA—continued	
	Cases		Cases
Cerebrospinal meningitis.....	1	Malaria.....	37
Chicken pox.....	188	Measles.....	114
Diphtheria.....	74	Mumps.....	15
Influenza.....	13	Pellagra.....	10
Measles.....	2,163	Pneumonia.....	95
Pneumonia.....	190	Poliomyelitis—Custer County.....	1
Poliomyelitis.....	1	Scarlet fever.....	24
Scarlet fever.....	177	Smallpox:	
Typhoid fever.....	8	Tillman County.....	20
Whooping cough.....	88	Scattering.....	17
		Typhoid fever.....	10
		Whooping cough.....	60
NEW MEXICO		OREGON	
Chicken pox.....	17	Cerebrospinal meningitis.....	1
Diphtheria.....	3	Chicken pox.....	48
Influenza.....	1	Diphtheria.....	8
Measles.....	13	Influenza.....	17
Mumps.....	20	Lethargic encephalitis.....	1
Pellagra.....	1	Measles.....	64
Pneumonia.....	3	Mumps.....	38
Rabies (in animals).....	2	Pneumonia.....	12
Scarlet fever.....	15	Scarlet fever.....	35
Smallpox.....	6	Septic sore throat.....	1
Tuberculosis.....	17	Smallpox.....	11
Typhoid fever.....	2	Tuberculosis.....	19
Whooping cough.....	37	Typhoid fever.....	3
		Whooping cough.....	31
NEW YORK		PENNSYLVANIA	
(Exclusive of New York City)		Cerebrospinal meningitis:	
Cerebrospinal meningitis.....	4	Laceyville.....	1
Chicken pox.....	336	McKees Rocks.....	1
Diphtheria.....	93	Chicken pox.....	284
German measles.....	614	Diphtheria.....	124
Influenza.....	241	German measles.....	60
Lethargic encephalitis.....	2	Impetigo contagiosa.....	12
Malaria.....	2	Lethargic encephalitis—Philadelphia.....	2
Measles.....	2,416	Measles.....	3,361
Mumps.....	223	Mumps.....	73
Ophthalmia neonatorum.....	1	Ophthalmia neonatorum—Philadelphia.....	4
Pneumonia.....	299	Pellagra.....	1
Poliomyelitis.....	1	Pneumonia.....	72
Scarlet fever.....	255	Poliomyelitis—Noyes Township <sup>1</sup> .....	1
Septic sore throat.....	8	Scabies.....	2
Smallpox.....	1	Scarlet fever.....	436
Tetanus.....	2	Smallpox.....	5
Typhoid fever.....	15	Tuberculosis.....	104
Vincent's angina.....	51	Typhoid fever.....	24
Whooping cough.....	473	Whooping cough.....	318
NORTH CAROLINA		RHODE ISLAND	
Cerebrospinal meningitis.....	1	Chicken pox.....	1
Chicken pox.....	80	Diphtheria.....	5
Diphtheria.....	17	German measles.....	48
German measles.....	306	Measles.....	89
Measles.....	400	Mumps.....	1
Scarlet fever.....	25	Ophthalmia neonatorum.....	1
Septic sore throat.....	1	Scarlet fever.....	2
Smallpox.....	46	Tuberculosis.....	6
Typhoid fever.....	4	Typhoid fever.....	1
Whooping cough.....	279	Whooping cough.....	14
OKLAHOMA			
(Exclusive of Oklahoma City and Tulsa)			
Chicken pox.....	27		
Diphtheria.....	16		
Influenza.....	215		

<sup>1</sup> Deaths.<sup>2</sup> County not specified.

SOUTH DAKOTA		WASHINGTON	
	Cases		Cases
Chicken pox.....	15	Cerebrospinal meningitis:	
Diphtheria.....	5	Spokane.....	3
Influenza.....	1	Stevens County.....	2
Measles.....	29	Chicken pox.....	59
Mumps.....	48	Diphtheria.....	19
Pneumonia.....	9	German measles.....	126
Pollomyelitis.....	1	Measles.....	59
Scarlet fever.....	66	Mumps.....	27
Smallpox.....	1	Scarlet fever.....	34
Whooping cough.....	13	Smallpox.....	48
		Tuberculosis.....	54
		Typhoid fever.....	5
		Whooping cough.....	62
TENNESSEE		WEST VIRGINIA	
Cerebrospinal meningitis—Chattanooga.....	1	Chicken pox.....	22
Chicken pox.....	22	Diphtheria.....	11
Diphtheria.....	6	Influenza.....	57
Influenza.....	120	Measles.....	904
Malaria.....	2	Scarlet fever.....	28
Measles.....	256	Smallpox.....	11
Mumps.....	8	Tuberculosis.....	37
Ophthalmia neonatorum.....	1	Typhoid fever.....	8
Pellagra.....	24	Whooping cough.....	26
Pneumonia.....	47		
Scarlet fever.....	23		
Smallpox:			
Lauderdale County.....	18		
Scattering.....	24		
Tuberculosis.....	30		
Typhoid fever.....	9		
Whooping cough.....	39		
TEXAS		WISCONSIN	
Anthrax.....	1	Milwaukee	
Cerebrospinal meningitis.....	3	Chicken pox.....	39
Chicken pox.....	115	Diphtheria.....	11
Dengue.....	1	German measles.....	5
Diphtheria.....	19	Influenza.....	3
Influenza.....	401	Measles.....	270
Measles.....	19	Mumps.....	39
Mumps.....	47	Pneumonia.....	30
Pellagra.....	5	Scarlet fever.....	14
Pneumonia.....	54	Tuberculosis.....	26
Scarlet fever.....	18	Typhoid fever.....	1
Smallpox.....	142	Whooping cough.....	30
Trachoma.....	1	Scattering:	
Tuberculosis.....	26	Cerebrospinal meningitis.....	3
Typhoid fever.....	5	Chicken pox.....	73
Whooping cough.....	76	Diphtheria.....	16
		German measles.....	143
		Influenza.....	243
		Measles.....	765
		Mumps.....	113
		Pneumonia.....	39
		Scarlet fever.....	122
		Smallpox.....	4
		Tuberculosis.....	23
		Typhoid fever.....	5
		Whooping cough.....	103
UTAH		WYOMING	
Chicken pox.....	33	Chicken pox.....	2
Diphtheria.....	5	Diphtheria.....	1
Influenza.....	6	Measles.....	4
Measles.....	27	Mumps.....	4
Mumps.....	17	Rocky Mountain spotted fever:	
Pneumonia.....	4	Campbell County.....	2
Scarlet fever.....	2	Hot Springs County.....	2
Smallpox.....	7	Natrona County.....	1
Typhoid fever.....	2	Niobrara County.....	1
Whooping cough.....	163	Washakie County.....	5
		Scarlet fever.....	14
		Smallpox.....	5
		Whooping cough.....	22
VERMONT			
Chicken pox.....	20		
Measles.....	49		
Mumps.....	9		
Scarlet fever.....	6		
Whooping cough.....	10		
VIRGINIA			
Smallpox.....	8		

## Report for Week Ended May 1, 1926

NORTH DAKOTA		NORTH DAKOTA—continued	
	Cases		Cases
Cerebrospinal meningitis.....	1	Pneumonia.....	15
Chicken pox.....	5	Scarlet fever.....	99
Diphtheria.....	7	Smallpox.....	1
German measles.....	96	Tuberculosis.....	4
Influenza.....	1	Typhoid fever.....	2
Measles.....	18	Whooping cough.....	2
Mumps.....	9		

## SUMMARY OF MONTHLY REPORTS FROM STATES

The following summary of monthly State reports is published weekly and covers only those States from which reports are received during the current week:

State	Cerebrospinal meningitis	Diphtheria	Influenza	Malaria	Measles	Pelagragra	Poliomyelitis	Scarlet fever	Smallpox	Typhoid fever
<i>March, 1926</i>										
Alabama.....	3	48	6,695	26	521	15	2	80	150	30
Idaho.....	25	24	24	0	106	0	0	85	94	6
Missouri.....	0	290	260	0	2,439	0	0	1,195	50	7
North Carolina.....	1	107			1,094		0	127	137	6
Oklahoma <sup>1</sup> .....	1	65	7,943	62	127	26	0	193	102	14
Wyoming.....	0	6	101	0	10	0	0	77	0	0

<sup>1</sup> Exclusive of Oklahoma City and Tulsa.

## PLAGUE-ERADICATIVE MEASURES IN LOS ANGELES, CALIF.

The following items were taken from the report of plague-eradication measures from Los Angeles, Calif.:

Week ended Apr. 24, 1926:

Number of rats trapped.....	494
Number of rats found to be plague infected.....	0
Number of squirrels examined.....	645
Number of squirrels found to be plague infected.....	0
Number of mice trapped.....	721
Number of mice found to be plague infected.....	0

Date of discovery of last plague-infected rodent, Nov. 6, 1925.

Date of last human case, Jan. 15, 1925.

## GENERAL CURRENT SUMMARY AND WEEKLY REPORTS FROM CITIES

*Diphtheria.*—For the week ended April 24, 1926, 37 States reported 1,090 cases of diphtheria. For the week ended April 25, 1925, the same States reported 1,232 cases of this disease. One hundred and three cities, situated in all parts of the country and having an aggregate population of nearly 30,500,000, reported 689 cases of diphtheria for the week ended April 24, 1926. Last year for the corresponding week they reported 893 cases. The estimated expectancy for these

cities was 903 cases. The estimated expectancy is based on the experience of the last nine years, excluding epidemics.

*Measles*.—Thirty-two States reported 16,514 cases of measles for the week ended April 24, 1926, and 5,239 cases of this disease for the week ended April 25, 1925. One hundred and three cities reported 10,463 cases of measles for the week this year and 3,559 cases last year.

*Poliomyelitis*.—The health officers of 38 States reported 10 cases of poliomyelitis for the week ended April 24, 1926. The same States reported 22 cases for the week ended April 25, 1925.

*Scarlet fever*.—Scarlet fever was reported for the week as follows: 37 States—this year, 3,569 cases; last year, 3,658 cases; 103 cities—this year, 1,655 cases; last year, 2,000 cases; estimated expectancy, 1,117 cases.

*Smallpox*.—For the week ended April 24, 1926, 38 States reported 843 cases of smallpox. Last year for the corresponding week they reported 919 cases. One hundred and three cities reported smallpox for the week as follows: 1926, 181 cases; 1925, 342 cases; estimated expectancy, 128 cases. Four deaths from smallpox were reported by these cities for the week this year—1 at Omaha, Nebr., 2 at Los Angeles, Calif., and 1 at San Francisco, Calif.

*Typhoid fever*.—One hundred and sixty-two cases of typhoid fever were reported for the week ended April 24, 1926, by 36 States. For the corresponding week of 1925 the same States reported 249 cases of this disease. One hundred and three cities reported 45 cases of typhoid fever for the week this year and 90 cases for the corresponding week last year. The estimated expectancy for these cities was 52 cases.

*Influenza and pneumonia*.—Deaths from influenza and pneumonia were reported for the week by 96 cities, with a population of more than 29,750,000, as follows: 1926, 1,364 deaths; 1925, 1,260.

*City reports for week ended April 24, 1926*

The "estimated expectancy" given for diphtheria, poliomyelitis, scarlet fever, smallpox, and typhoid fever is the result of an attempt to ascertain from previous occurrence how many cases of the disease under consideration may be expected to occur during a certain week in the absence of epidemics. It is based on reports to the Public Health Service during the past nine years. It is in most instances the median number of cases reported in the corresponding week of the preceding years. When the reports include several epidemics or when for other reasons the median is unsatisfactory, the epidemic periods are excluded and the estimated expectancy is the mean number of cases reported for the week during non-epidemic years.

If reports have not been received for the full nine years, data are used for as many years as possible, but no year earlier than 1917 is included. In obtaining the estimated expectancy, the figures are smoothed when necessary to avoid abrupt deviations from the usual trend. For some of the diseases given in the table the available data were not sufficient to make it practicable to compute the estimated expectancy.

Division, State, and city	Population July 1, 1925, estimated	Chicken pox, cases reported	Diphtheria		Influenza		Measles, cases reported	Mumps, cases reported	Pneumonia, deaths reported
			Cases, estimated expectancy	Cases reported	Cases reported	Deaths reported			
NEW ENGLAND									
Maine:									
Portland.....	75,333	5	1	2	4	1	175	12	1
New Hampshire:									
Concord.....	22,546	0	0	0	0	0	0	0	3
Vermont:									
Barre.....	10,008	0	0	0	0	0	0	1	1
Burlington.....	24,083	0	0	0	0	0	0	0	1
Massachusetts:									
Boston.....	779,620	24	52	15	11	6	174	23	41
Fall River.....	125,993	1	3	3	5	2	7	1	17
Springfield.....	142,965	3	3	0	0	1	73	0	2
Worcester.....	190,757	1	4	5	7	0	6	1	13
Rhode Island:									
Pawtucket.....	63,760	0	1	0	0	0	33	0	0
Providence.....	267,918	0	10	2	0	2	103	0	5
Connecticut:									
Bridgeport.....	(1)	0	6	2	2	5	5	0	2
Hartford.....	160,197	2	6	2	3	0	48	1	7
New Haven.....	173,927	7	3	0	2	0	75	2	7
MIDDLE ATLANTIC									
New York:									
Buffalo.....	538,016	17	9	9	0	1	23	2	25
New York.....	5,873,356	104	249	165	98	43	1,540	0	310
Rochester.....	316,786	9	0	27	1	0	131	1	11
Syracuse.....	182,003	4	6	2	0	1	96	18	3
New Jersey:									
Camden.....	128,642	10	4	2	4	3	23	0	5
Newark.....	452,513	27	16	7	2	0	290	15	16
Trenton.....	132,020	1	3	4	3	1	72	0	10
Pennsylvania:									
Philadelphia.....	1,979,364	102	70	96	-----	12	801	8	75
Pittsburgh.....	631,563	14	17	13	-----	7	185	0	25
Reading.....	112,707	2	3	0	-----	0	25	1	2
EAST NORTH CENTRAL									
Ohio:									
Cincinnati.....	409,333	8	7	5	5	13	159	7	15
Cleveland.....	936,485	17	20	31	7	10	161	5	36
Columbus.....	279,836	4	4	1	0	2	367	0	7
Toledo.....	287,380	38	4	2	0	5	238	1	6
Indiana:									
Fort Wayne.....	97,846	3	2	1	0	1	45	0	4
Indianapolis.....	358,819	10	5	3	0	1	279	3	19
South Bend.....	90,091	3	1	0	0	0	26	0	2
Terre Haute.....	71,071	0	1	0	0	0	32	0	1
Illinois:									
Chicago.....	2,995,239	82	94	49	28	8	164	20	71
Peoria.....	81,564	5	0	0	0	2	0	2	5
Springfield.....	69,923	3	1	0	3	2	55	4	2
Michigan:									
Detroit.....	1,245,824	22	45	25	6	18	260	3	70
Flint.....	130,316	17	3	2	0	2	67	0	6
Grand Rapids.....	153,698	7	4	1	0	1	48	0	6

No estimate made.



## City reports for week ended April 24, 1926—Continued

Division, State, and city	Population July 1, 1925, estimated	Chicken pox, cases reported	Diphtheria		Influenza		Measles, cases reported	Mumps, cases reported	Pneumonia, deaths reported
			Cases, estimated expectancy	Cases reported	Cases reported	Deaths reported			
EAST NORTH CENTRAL—continued									
Wisconsin:									
Kenosha.....	50,891	2	1	0	0	0	1	0	
Madison.....	46,385	4	0	0	0	0	215	0	
Milwaukee.....	509,192	67	12	9	13	3	177	42	3
Racine.....	67,707	1	2	0	2	0	35	7	
Superior.....	39,671	0	1	0	0	0	49	0	
WEST NORTH CENTRAL									
Minnesota:									
Duluth.....	110,502	12	1	0	0	0	23	1	
Minneapolis.....	425,435	49	15	23	0	4	387	5	1
St. Paul.....	246,001	20	14	10	0	0	69	8	1
Iowa:									
Davenport.....	52,469	6	0	0	0	0	0	0	
Des Moines.....	141,441	0	2	0	0	0	0	0	
Sioux City.....	76,411	1	1	2	0	0	21	1	
Waterloo.....	36,771	3	0	0	0	0	33	0	
Missouri:									
Kansas City.....	367,481	10	6	6	9	8	323	6	1
St. Joseph.....	78,342	1	1	0	0	0	35	1	
St. Louis.....	821,543	-----	39	46	3	3	946	-----	-----
North Dakota:									
Fargo.....	26,403	1	0	0	0	0	0	14	
Grand Forks.....	14,811	0	0	0	0	0	1	0	
South Dakota:									
Aberdeen.....	15,036	4	0	0	0	0	29	33	
Sioux Falls.....	30,127	2	0	0	0	0	3	0	
Nebraska:									
Lincoln.....	60,941	11	2	1	0	0	1	2	
Omaha.....	211,768	4	3	2	0	0	81	0	
Kansas:									
Topeka.....	55,411	26	1	0	2	0	20	0	
Wichita.....	88,367	5	1	1	0	0	119	2	
SOUTH ATLANTIC									
Delaware:									
Wilmington.....	122,049	0	1	2	0	0	11	0	
Maryland:									
Baltimore.....	796,296	57	23	17	14	6	179	219	
Cumberland.....	33,741	3	0	0	0	0	15	0	
Frederick.....	12,035	0	0	0	0	0	15	1	
District of Columbia:									
Washington.....	497,906	25	9	9	0	0	585	0	
Virginia:									
Lynchburg.....	30,395	12	1	1	0	0	83	0	
Norfolk.....	(1)	21	1	0	0	0	5	0	
Richmond.....	186,403	4	2	3	0	0	61	10	
Roanoke.....	58,208	1	1	0	0	2	172	0	
West Virginia:									
Charleston.....	49,019	5	0	1	1	1	11	0	
Wheeling.....	56,208	7	1	0	0	2	155	0	
North Carolina:									
Raleigh.....	30,371	1	0	0	0	0	0	0	
Wilmington.....	37,061	6	0	0	0	0	1	1	
Winston-Salem.....	69,031	4	0	0	0	1	24	3	
South Carolina:									
Charleston.....	73,125	2	0	0	2	0	4	2	
Columbia.....	41,225	6	0	0	0	0	0	2	
Greenville.....	27,311	0	0	0	0	0	4	2	
Georgia:									
Atlanta.....	(1)	6	1	1	12	0	14	0	
Brunswick.....	16,809	0	1	0	2	0	0	0	
Savannah.....	93,134	2	0	0	3	2	4	0	
Florida:									
St. Petersburg.....	26,847	-----	0	-----	0	-----	0	-----	-----
Tampa.....	94,743	10	1	2	0	2	8	3	

1 No estimate made.

## City reports for week ended April 24, 1926—Continued

Division, State, and city	Population July 1, 1925, estimated	Chicken pox, cases reported	Diphtheria		Influenza		Measles, cases reported	Mumps, cases reported	Pneumonia, deaths reported
			Cases, estimated expectancy	Cases reported	Cases reported	Deaths reported			
EAST SOUTH CENTRAL									
Kentucky:									
Covington.....	58,309	0	1	0	0	1	27	0	2
Louisville.....	305,935	2	4	1	1	1	307	1	26
Tennessee:									
Memphis.....	174,533	31	3	2	0	6	217	3	6
Nashville.....	136,220	0	0	1	0	8	43	0	6
Alabama:									
Birmingham.....	205,670	10	1	0	9	3	55	3	7
Mobile.....	65,955	0	0	0	0	1	0	0	3
Montgomery.....	46,481	7	0	1	2	0	15	32	0
WEST SOUTH CENTRAL									
Arkansas:									
Fort Smith.....	31,643	0	1	0	0	-----	0	0	-----
Little Rock.....	74,216	5	0	0	0	0	30	0	0
Louisiana:									
New Orleans.....	414,493	14	7	2	6	5	6	0	12
Shreveport.....	57,857	5	1	1	0	2	2	16	4
Oklahoma:									
Oklahoma City.....	(1)	0	1	0	10	1	4	0	1
Texas:									
Dallas.....	194,450	25	3	2	4	4	0	0	2
Galveston.....	48,375	0	0	0	0	0	0	0	0
Houston.....	164,954	0	2	5	0	3	0	0	5
San Antonio.....	198,069	0	1	1	0	0	0	0	6
MOUNTAIN									
Montana:									
Billings.....	17,971	0	1	0	0	0	24	6	0
Great Falls.....	29,883	15	1	0	0	0	38	1	0
Helena.....	12,037	0	0	0	0	1	0	0	0
Missoula.....	12,668	0	1	0	0	0	1	9	0
Idaho:									
Boise.....	23,042	0	0	0	0	0	0	0	0
Colorado:									
Denver.....	250,911	56	11	7	-----	4	29	0	9
Eueblo.....	43,787	11	1	0	0	0	11	0	1
New Mexico:									
Albuquerque.....	21,000	1	1	1	0	0	3	5	1
Arizona:									
Phoenix.....	38,669	0	-----	0	0	3	0	0	0
Utah:									
Salt Lake City.....	130,948	30	3	2	0	0	15	14	2
Nevada:									
Reno.....	12,665	0	0	0	0	0	0	0	0
PACIFIC									
Washington:									
Seattle.....	(1)	39	4	2	0	-----	47	21	-----
Spokane.....	108,897	7	3	2	0	-----	0	0	-----
Tacoma.....	104,455	3	1	1	0	0	6	3	1
Oregon:									
Portland.....	282,383	23	4	11	0	1	24	7	7
California:									
Los Angeles.....	(1)	43	33	38	9	1	18	11	14
Sacramento.....	72,260	3	1	4	0	0	0	6	3
San Francisco.....	557,530	42	21	7	0	0	116	9	2

<sup>1</sup> No estimate made.

## City reports for week ended April 24, 1926—Continued

Division, State, and city	Scarlet fever		Smallpox			Tuber- culo- sis, deaths re- ported	Typhoid fever			Whoop- ing cough, cases re- ported	Deaths, all causes
	Cases, esti- mated expect- ancy	Cases, re- ported	Cases, esti- mated expect- ancy	Cases, re- ported	Deaths re- ported		Cases, esti- mated expect- ancy	Cases re- ported	Deaths re- ported		
NEW ENGLAND											
Maine:											
Portland.....	3	1	0	0	0	0	1	0	0	10	21
New Hampshire:											
Concord.....	1	0	0	0	0	3	0	0	0	0	15
Vermont:											
Barre.....	1	0	0	0	0	1	0	0	0	0	2
Burlington.....	1	3	0	0	0	2	0	0	0	0	18
Massachusetts:											
Boston.....	58	59	0	0	0	16	1	1	0	76	275
Fall River.....	3	2	0	0	0	6	1	0	0	2	71
Springfield.....	5	3	0	0	0	1	1	0	0	14	38
Worcester.....	9	3	0	0	0	4	0	0	0	10	65
Rhode Island:											
Pawtucket.....	1	1	0	0	0	0	0	0	0	7	25
Providence.....	8	3	0	0	0	11	0	1	0	6	90
Connecticut:											
Bridgeport.....	8	10	0	0	0	2	0	0	0	2	38
Hartford.....	4	2	0	0	0	3	0	0	0	4	44
New Haven.....	8	10	0	0	0	0	1	0	0	17	41
MIDDLE ATLANTIC											
New York:											
Buffalo.....	20	14	0	0	0	16	0	0	0	42	165
New York.....	248	185	0	0	0	1 132	10	12	3	78	1,731
Rochester.....	17	13	0	0	0	6	0	0	0	2	94
Syracuse.....	13	2	0	0	0	2	1	0	0	33	49
New Jersey:											
Camden.....	3	8	0	0	0	0	0	0	0	0	51
Newark.....	25	16	0	0	0	11	1	1	0	26	120
Trenton.....	2	3	1	0	0	0	0	0	0	2	48
Pennsylvania:											
Philadelphia.....	76	110	1	0	0	52	3	2	1	42	566
Pittsburgh.....	22	41	0	0	0	7	1	1	0	115	203
Reading.....	3	12	0	0	0	2	0	0	0	12	24
EAST NORTH CENTRAL											
Ohio:											
Cincinnati.....	15	13	2	1	0	8	1	0	0	34	165
Cleveland.....	21	58	1	0	0	22	1	0	0	101	245
Columbus.....	7	11	1	2	0	4	0	0	0	2	78
Toledo.....	15	16	5	0	0	20	0	0	0	51	98
Indiana:											
Fort Wayne.....	3	0	2	10	0	1	0	0	0	3	26
Indianapolis.....	14	12	5	16	0	5	0	0	0	67	129
South Bend.....	3	7	1	0	0	0	0	0	0	13	11
Terre Haute.....	2	2	2	0	0	0	0	0	0	2	17
Illinois:											
Chicago.....	110	120	2	1	0	52	2	0	0	29	715
Peoria.....	2	1	1	0	0	1	0	0	0	5	29
Springfield.....	1	3	1	0	0	2	1	0	0	9	25
Michigan:											
Detroit.....	81	121	3	0	0	35	2	0	0	55	411
Flint.....	6	18	1	1	0	2	0	0	0	19	29
Grand Rapids.....	7	19	2	0	0	2	0	0	0	26	50
Wisconsin:											
Kenosha.....	2	2	1	0	0	0	0	0	0	7	14
Madison.....	4	4	1	1	0	0	0	0	0	4	14
Milwaukee.....	27	17	3	0	0	9	1	0	0	30	143
Racine.....	3	8	2	0	0	1	0	1	0	19	19
Superior.....	2	9	1	0	0	2	0	0	0	0	19
WEST NORTH CENTRAL											
Minnesota:											
Duluth.....	4	25	1	0	0	0	1	0	0	4	21
Minneapolis.....	29	68	9	0	0	10	1	2	0	2	137
St. Paul.....	24	38	5	0	0	6	0	1	0	17	77

1 Pulmonary tuberculosis only.

## City reports for week ended April 24, 1926—Continued

Division, State, and city	Scarlet fever		Smallpox			Tuber- culosis, deaths re- ported	Typhoid fever			Whoop- ing cough, cases re- ported	Deaths, all causes
	Cases, esti- mated expect- ancy	Cases, re- ported	Cases, esti- mated expect- ancy	Cases, re- ported	Deaths re- ported		Cases, esti- mated expect- ancy	Cases re- ported	Deaths re- ported		
WEST NORTH CENTRAL—continued											
Iowa:											
Davenport.....	2	3	4	0	-----	-----	0	0	-----	3	-----
Des Moines.....	8	4	3	1	-----	-----	0	0	-----	0	-----
Sioux City.....	3	5	1	9	-----	-----	0	0	-----	2	-----
Waterloo.....	1	0	0	2	-----	-----	0	0	-----	7	-----
Missouri:											
Kansas City.....	11	27	2	0	0	5	1	0	0	29	118
St. Joseph.....	2	15	0	0	0	0	0	0	0	0	34
St. Louis.....	33	200	4	5	0	11	2	0	0	-----	258
North Dakota:											
Fargo.....	1	8	0	1	0	1	0	0	0	0	6
Grand Forks.....	0	0	0	0	-----	-----	0	0	-----	0	-----
South Dakota:											
Aberdeen.....	1	3	0	0	-----	-----	0	0	-----	5	-----
Sioux Falls.....	1	0	0	0	0	0	0	0	0	0	10
Nebraska:											
Lincoln.....	3	2	0	6	0	0	0	0	0	8	26
Omaha.....	3	51	7	4	1	4	0	0	0	1	74
Kansas:											
Topeka.....	3	6	1	1	0	0	0	0	0	0	10
Wichita.....	2	3	3	0	0	1	1	0	0	7	26
SOUTH ATLANTIC											
Delaware:											
Wilmington....	3	6	0	0	0	0	0	0	0	3	42
Maryland:											
Baltimore.....	30	25	1	0	0	28	2	2	2	70	262
Cumberland.....	1	0	0	0	0	0	0	0	0	0	12
Frederick.....	2	0	0	0	0	0	0	0	0	0	4
District of Col.:											
Washington....	23	21	1	0	0	16	1	0	0	29	126
Virginia:											
Lynchburg.....	0	0	0	0	0	2	0	0	0	8	15
Norfolk.....	1	12	0	0	0	6	0	0	0	18	-----
Richmond.....	2	7	0	0	0	5	0	0	0	2	65
Roanoke.....	1	1	0	0	0	0	0	0	0	2	20
West Virginia:											
Charleston.....	1	0	1	0	0	2	0	0	0	3	26
Wheeling.....	2	5	0	0	0	1	0	1	0	0	25
North Carolina:											
Raleigh.....	0	0	0	0	0	1	0	0	0	1	12
Wilmington....	1	0	0	0	0	0	0	0	0	2	5
Winston-Salem.....	1	5	5	1	0	2	0	0	0	4	19
South Carolina:											
Charleston.....	0	0	1	0	0	1	1	0	0	0	27
Columbia.....	0	0	1	2	0	0	0	1	0	1	-----
Greenville.....	0	1	1	0	0	2	0	0	0	5	10
Georgia:											
Atlanta.....	4	1	4	0	0	6	0	0	0	6	71
Brunswick.....	0	0	0	0	0	1	1	0	0	0	5
Savannah.....	0	0	1	0	0	5	0	0	0	0	33
Florida:											
St. Petersburg..	0	-----	0	-----	0	1	0	-----	0	-----	21
Tampa.....	0	1	0	22	0	3	0	0	0	1	35
EAST SOUTH CENTRAL											
Kentucky:											
Covington.....	2	0	0	0	0	3	1	0	0	2	24
Louisville.....	5	6	1	1	0	6	1	0	0	7	104
Tennessee:											
Memphis.....	4	36	3	0	0	8	0	0	0	5	81
Nashville.....	2	0	1	0	0	2	0	2	0	6	43
Alabama:											
Birmingham....	1	1	8	15	0	5	0	1	1	3	75
Mobile.....	0	1	1	1	0	0	0	0	0	1	21
Montgomery....	1	0	1	2	0	0	1	2	0	0	27



## City reports for week ended April 24, 1926—Continued

Division, State, and city	Cerebrospinal meningitis		Lethargic encephalitis		Pellagra		Poliomyelitis (infantile paralysis)		
	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases, estimated expectancy	Cases	Deaths
MIDDLE ATLANTIC									
New York:									
New York.....	4	3	10	6	0	0	1	2	1
New Jersey:									
Trenton.....	0	0	0	1	0	0	0	0	0
Pennsylvania:									
Philadelphia.....	0	0	3	2	0	0	0	0	0
EAST NORTH CENTRAL									
Ohio:									
Cincinnati.....	0	0	0	1	0	0	0	0	0
Cleveland.....	0	0	0	2	0	0	0	0	0
Illinois:									
Chicago.....	0	0	0	0	0	1	0	0	0
Michigan:									
Detroit.....	2	1	0	1	0	0	0	0	0
Wisconsin:									
Milwaukee.....	0	0	0	0	0	0	0	1	1
Superior.....	0	0	0	1	0	0	0	0	0
WEST NORTH CENTRAL									
Missouri:									
St. Louis.....	3	1	0	0	0	0	0	0	0
SOUTH ATLANTIC									
Maryland:									
Baltimore.....	0	0	0	1	0	0	0	0	0
EAST SOUTH CENTRAL									
Alabama:									
Birmingham.....	0	0	0	0	1	0	0	0	0
WEST SOUTH CENTRAL									
Louisiana:									
Shreveport.....	0	1	0	0	0	1	0	0	0
Texas:									
Dallas.....	0	0	0	0	1	2	0	0	0
PACIFIC									
Washington:									
Spokane.....	2	0	0	0	0	0	0	0	0
Oregon:									
Portland.....	0	0	1	0	0	0	0	0	0
California:									
Los Angeles.....	0	0	0	0	1	1	1	0	0
Sacramento.....	0	1	0	0	0	0	0	0	0
San Francisco.....	0	0	0	0	0	1	0	0	0

The following table gives the rates per 100,000 population for 103 cities for the five-week period ended April 24, 1926, compared with those for a like period ended April 25, 1925. The population figures used in computing the rates are approximate estimates as of July 1, 1925 and 1926, respectively, authoritative figures for many of the cities not being available. The 103 cities reporting cases had an estimated aggregate population of nearly 30,000,000 in 1925 and nearly 30,500,000 in 1926. The 96 cities reporting deaths had more than 29,250,000 estimated population in 1925 and more than 29,750,000 in 1926. The number of cities included in each group and the estimated aggregate populations are shown in a separate table below.

Summary of weekly reports from cities, March 21 to April 24, 1926—Annual rates per 100,000 population—Compared with rates for the corresponding period of 1925<sup>1</sup>

## DIPHTHERIA CASE RATES

	Week ended—									
	Mar. 28, 1925	Mar. 27, 1926	Apr. 4, 1925	Apr. 3, 1926	Apr. 11, 1925	Apr. 10, 1926	Apr. 18, 1925	Apr. 17, 1926	Apr. 25, 1925	Apr. 21, 1926
103 cities.....	<sup>2</sup> 162	<sup>3</sup> 131	170	<sup>4</sup> 126	152	<sup>5</sup> 117	155	<sup>6</sup> 110	155	118
New England.....	115	139	165	80	161	125	125	47	139	73
Middle Atlantic.....	230	142	240	145	219	125	227	118	217	162
East North Central.....	104	101	96	<sup>7</sup> 112	91	88	103	86	106	87
West North Central.....	239	146	213	156	219	200	163	<sup>8</sup> 247	181	178
South Atlantic.....	90	<sup>9</sup> 62	77	96	69	86	96	90	102	63
East South Central.....	53	<sup>2</sup> 39	21	<sup>5</sup> 61	32	<sup>5</sup> 121	42	47	37	26
West South Central.....	114	155	79	60	101	60	70	30	75	47
Mountain.....	129	255	120	146	102	118	231	191	299	82
Pacific.....	<sup>2</sup> 170	240	356	202	163	137	160	135	157	146

## MEASLES CASE RATES

103 cities.....	<sup>2</sup> 489	<sup>3</sup> 1,537	537	<sup>4</sup> 1,695	510	<sup>5</sup> 1,734	564	<sup>6</sup> 1,772	620	1,790
New England.....	728	1,347	923	1,463	975	1,572	884	1,813	1,174	1,666
Middle Atlantic.....	630	1,835	731	1,847	677	1,769	811	1,699	779	1,593
East North Central.....	747	2,083	685	<sup>7</sup> 1,503	453	1,570	681	1,469	833	1,457
West North Central.....	86	2,306	74	2,391	56	3,240	88	<sup>8</sup> 3,364	98	4,079
South Atlantic.....	129	<sup>9</sup> 2,750	198	2,671	196	2,632	242	2,943	273	2,538
East South Central.....	32	<sup>3</sup> 3,066	63	<sup>5</sup> 3,063	32	<sup>5</sup> 3,218	89	2,781	173	3,145
West South Central.....	9	125	84	43	48	237	62	133	35	163
Mountain.....	37	310	213	555	55	419	259	328	213	1,074
Pacific.....	<sup>2</sup> 144	453	199	248	229	391	146	373	193	594

## SCARLET FEVER CASE RATES

103 cities.....	<sup>2</sup> 403	<sup>3</sup> 325	394	<sup>4</sup> 296	353	<sup>5</sup> 274	329	<sup>6</sup> 306	348	283
New England.....	582	355	515	392	510	319	338	373	393	222
Middle Atlantic.....	404	210	434	210	358	176	341	187	335	201
East North Central.....	449	407	412	<sup>7</sup> 331	391	330	376	343	410	287
West North Central.....	731	389	713	774	627	833	631	<sup>8</sup> 904	671	883
South Atlantic.....	157	<sup>9</sup> 156	165	175	144	147	157	182	165	160
East South Central.....	263	<sup>5</sup> 149	242	<sup>5</sup> 231	257	<sup>5</sup> 176	210	156	236	223
West South Central.....	97	146	48	86	84	116	57	133	114	172
Mountain.....	240	209	268	146	250	100	305	173	388	200
Pacific.....	<sup>2</sup> 211	288	182	251	166	156	138	340	141	262

## SMALLPOX CASE RATES

103 cities.....	<sup>2</sup> 56	<sup>3</sup> 38	55	<sup>4</sup> 42	49	<sup>5</sup> 33	46	<sup>6</sup> 26	60	31
New England.....	0	0	12	0	2	0	0	0	2	0
Middle Atlantic.....	7	0	21	0	10	0	18	0	12	0
East North Central.....	31	10	22	<sup>7</sup> 17	21	18	25	14	37	22
West North Central.....	131	57	84	46	94	51	82	<sup>8</sup> 45	86	44
South Atlantic.....	63	<sup>9</sup> 66	46	41	40	68	50	43	75	47
East South Central.....	398	<sup>5</sup> 61	378	<sup>5</sup> 105	525	<sup>9</sup> 94	362	52	420	99
West South Central.....	101	142	44	90	48	133	13	95	40	112
Mountain.....	18	27	18	55	18	27	9	27	28	46
Pacific.....	<sup>2</sup> 182	210	243	348	141	137	155	137	251	140

<sup>1</sup> The figures given in this table are rates per 100,000 population, annual basis, and not the number of cases reported. Populations used are estimated as of July 1, 1925, and 1926, respectively.

<sup>2</sup> Spokane, Wash., not included.

<sup>3</sup> Norfolk, Va., and Covington, Ky., not included.

<sup>4</sup> Madison, Wis., and Covington, Ky., not included.

<sup>5</sup> Covington, Ky., not included.

<sup>6</sup> St. Joseph, Mo., not included.

<sup>7</sup> Madison, Wis., not included.

<sup>8</sup> Norfolk, Va., not included.

Summary of weekly reports from cities, March 21 to April 24, 1926—Annual rates per 100,000 population—Compared with rates for the corresponding period of 1925—Continued

## TYPHOID FEVER CASE RATES

	Week ended—									
	Mar. 28, 1925	Mar. 27, 1926	Apr. 4, 1925	Apr. 3, 1926	Apr. 11, 1925	Apr. 10, 1926	Apr. 18, 1925	Apr. 17, 1926	Apr. 25, 1925	Apr. 21, 1926
103 cities.....	10	8	8	10	9	7	11	7	16	8
New England.....	12	0	5	7	2	9	7	9	17	5
Middle Atlantic.....	7	10	4	8	9	5	11	7	14	8
East North Central.....	3	4	3	7	6	3	4	2	6	1
West North Central.....	12	2	2	8	2	10	2	4	6	6
South Atlantic.....	6	16	29	17	19	6	12	4	13	8
East South Central.....	53	17	16	33	16	11	32	0	74	26
West South Central.....	40	9	31	34	35	17	53	34	48	26
Mountain.....	0	27	0	36	18	18	37	9	28	0
Pacific.....	26	13	19	11	8	13	11	13	22	22

## INFLUENZA DEATH RATES

	31	97	33	89	26	74	26	54	29	38
96 cities.....	31	97	33	89	26	74	26	54	29	38
New England.....	29	69	34	109	31	83	26	52	29	40
Middle Atlantic.....	22	111	21	100	16	76	24	59	17	34
East North Central.....	38	104	36	110	25	81	23	67	31	42
West North Central.....	44	38	38	38	36	31	49	24	47	31
South Atlantic.....	12	82	27	58	25	58	10	43	40	30
East South Central.....	79	254	63	99	68	239	74	47	79	104
West South Central.....	34	123	34	109	44	71	10	57	24	66
Mountain.....	37	64	176	27	83	46	37	46	74	46
Pacific.....	47	14	25	21	11	14	25	21	11	4

## PNEUMONIA DEATH RATES

	197	372	197	335	194	277	184	241	106	201
96 cities.....	197	372	197	335	194	277	184	241	106	201
New England.....	211	430	242	468	204	350	199	303	180	234
Middle Atlantic.....	198	493	214	432	189	338	203	288	222	240
East North Central.....	201	351	171	321	178	245	178	232	199	191
West North Central.....	161	159	186	159	220	184	165	134	131	136
South Atlantic.....	232	330	219	289	223	285	217	207	180	205
East South Central.....	247	477	247	353	315	431	189	332	263	259
West South Central.....	160	175	160	198	160	170	92	194	150	137
Mountain.....	194	191	157	155	259	137	203	155	213	109
Pacific.....	142	117	142	57	105	149	87	117	131	71

<sup>2</sup> Spokane, Wash., not included.

<sup>3</sup> Norfolk, Va. and Covington, Ky., not included.

<sup>4</sup> Madison, Wis., and Covington, Ky., not included.

<sup>5</sup> Covington, Ky., not included.

<sup>6</sup> St. Joseph, Mo., not included.

<sup>7</sup> Madison, Wis., not included.

<sup>8</sup> Norfolk, Va., not included.

Number of cities included in summary of weekly reports, and aggregate population of cities in each group, approximated as of July 1, 1925 and 1926, respectively

Group of cities	Number of cities reporting cases	Number of cities reporting deaths	Aggregate population of cities reporting cases		Aggregate population of cities reporting deaths	
			1925	1926	1925	1926
Total.....	103	96	29,944,996	30,473,129	28,251,658	29,764,201
New England.....	12	12	2,176,124	2,206,124	2,176,124	2,206,124
Middle Atlantic.....	10	10	10,346,970	10,476,970	10,346,970	10,476,970
East North Central.....	16	16	7,481,656	7,655,436	7,481,656	7,655,436
West North Central.....	14	11	2,594,962	2,634,662	2,461,380	2,499,036
South Atlantic.....	21	21	2,116,070	2,776,070	2,716,070	2,776,070
East South Central.....	7	7	903,103	1,004,953	903,103	1,004,953
West South Central.....	8	6	1,184,957	1,212,057	1,078,198	1,103,695
Mountain.....	9	9	563,912	572,773	563,912	572,773
Pacific.....	6	4	1,888,142	1,834,084	1,434,245	1,469,144



## FOREIGN AND INSULAR

### THE FAR EAST

*Report for week ended April 17, 1926.*—The following report for the week ended April 17, 1926, was transmitted by the far eastern bureau of the health section of the League of Nations' secretariat, located at Singapore, to the headquarters at Geneva:

Port	Plague		Cholera		Small-pox		Port	Plague		Cholera		Small-pox	
	Cases	Deaths	Cases	Deaths	Cases	Deaths		Cases	Deaths	Cases	Deaths	Cases	Deaths
Calcutta.....	0	0	46	50	35		Niigata.....	0	0	0	0	0	0
Bombay.....	4	0	24	14			Isuruga.....	0	0	0	0	0	0
Madras.....	0	0	8	1			Hakodate.....	0	0	0	0	0	0
Rangoon.....	1	0	1	2			Keelung (Formosa).....	0	0	0	0	0	0
Negapatam.....	0	0	1	1			Fusan.....	0	0	0	0	0	0
Colombo.....	0	0	0	0			Chemulpo.....	0	0	0	0	0	0
Basra.....	0	0	3	2			Dairen.....	0	0	0	0	3	1
Singapore.....	0	0	0	0			Mukden.....	0	0	0	0	3	3
Port Swettenham.....	0	0	0	0			Changehun.....	0	0	0	0	2	2
Penang.....	0	0	0	0			Adelaide.....	0	0	0	0	0	0
Batavia.....	0	0	0	0			Brisbane.....	0	0	0	0	0	0
Surabaya.....	0	0	0	0			Fremantle.....	0	0	0	0	0	0
Samarang.....	0	0	0	0			Melbourne.....	0	0	0	0	0	0
Cheribon.....	2	1	0	0			Sydney.....	0	0	0	0	0	0
Belawan Deli.....	0	0	0	0			Rockhampton.....	0	0	0	0	0	0
Palembang.....	0	0	0	0			Townsville.....	0	0	0	0	0	0
Padang (Sumatra).....	0	0	0	0			Port Darwin.....	0	0	0	0	0	0
Sabang (Rhio).....	0	0	0	0			Broome.....	0	0	0	0	0	0
Makassar.....	0	0	0	0			Port Moresby.....	0	0	0	0	0	0
Manada.....	0	0	0	0			Auckland.....	0	0	0	0	0	0
Benjermassin.....	0	0	0	0			Wellington.....	0	0	0	0	0	0
Balik Papan.....	0	0	0	0			Christchurch.....	0	0	0	0	0	0
Sandakan (North Borneo).....	0	0	0	0			Invercargill.....	0	0	0	0	0	0
Kuching (Sarawak).....	0	0	0	0			Noumea (New Caledonia).....	0	0	0	0	0	0
Timor Dilly.....	0	0	0	0			Honolulu.....	0	0	0	0	0	0
Manila.....	0	0	0	0			Suez.....	0	0	0	0	0	0
Iloilo.....	0	0	0	0			Tor (quarantine station).....	0	0	0	0	0	0
Jolo.....	0	0	0	0			Alexandria.....	1	0	0	0	0	0
Cebu.....	0	0	0	0			Port Said.....	0	0	0	0	0	0
Zamboanga.....	0	0	0	0			Port Sudan.....	0	0	0	0	0	0
Bangkok.....	1	1	92	67	7	4	Mombasa (Kenya).....	0	0	0	0	0	0
Saigon and Cholon.....	0	0	46	32	0	0	Massowah.....	0	0	0	0	0	0
Happong.....	0	0	0	0			Djibuti.....	0	0	0	0	0	0
Tourane.....	0	0	0	0			Berbera.....	0	0	0	0	0	0
Hongkong.....	0	0	0	3	3		Mozambique.....	0	0	0	0	0	0
Shanghai.....	0	0	0	4	2		Lourenco Marques.....	0	0	0	0	0	0
Amoy.....	0	0	0	0			Durban.....	0	0	0	0	0	0
Nagasaki.....	0	0	0	4	0		East London.....	0	0	0	0	0	0
Yokohama.....	0	0	0	0			Port Elizabeth.....	0	0	0	0	0	0
Simonseski.....	0	0	0	1	0		Cape Town.....	0	0	0	0	0	0
Moji.....	0	0	0	0			Port Louis (Mauritius).....	0	0	0	0	0	0
Kobe.....	0	0	0	1	0		Seychelles.....	0	0	0	0	0	0
Osaka.....	0	0	0	1	0								

### AZORES

*Smallpox (reported as alastrim)*—Island of Fayal—February 22–April 11, 1926.—Smallpox, reported as alastrim, was reported present in the island of Fayal, Azores. Statistics were not available but prevalence in the town of Horta was stated to be diminishing.

## CANADA

*Communicable diseases—Week ended April 24, 1926.*—The following table shows the number of certain communicable diseases reported in seven provinces of Canada during the week ended April 3, 1926. The information was supplied by the Canadian Ministry of Health.

Disease	Nova Scotia	New Brunswick	Quebec	Ontario	Manitoba	Saskatchewan	Alberta	Total
Influenza.....	189	-----	-----	-----	1	-----	-----	190
Smallpox.....	-----	-----	-----	19	5	14	1	39
Typhoid fever.....	-----	-----	7	5	-----	-----	-----	12

*Communicable diseases—Ontario—March 27–April 24, 1926—Comparative.*—During the four-week period ended April 24, 1926, communicable diseases were reported in the Province of Ontario, Canada, as follows:

Disease	April, 1926		April, 1925	
	Cases	Deaths	Cases	Deaths
Cerebrospinal meningitis.....	2	-----	2	2
Chancroid.....	2	-----	4	-----
Chicken pox.....	395	-----	322	-----
Diphtheria.....	122	12	182	16
German measles.....	361	-----	6	-----
Gonorrhea.....	78	-----	88	-----
Influenza.....	-----	164	-----	36
Lethargic encephalitis.....	1	1	4	3
Measles.....	1,880	7	1,043	2
Mumps.....	158	-----	848	-----
Pneumonia.....	-----	319	-----	203
Scarlet fever.....	526	7	603	8
Septic sore throat.....	-----	-----	15	-----
Smallpox.....	52	-----	12	-----
Syphilis.....	59	-----	119	-----
Tuberculosis.....	171	105	142	83
Typhoid fever.....	23	1	26	2
Whooping cough.....	255	9	352	10

## CZECHOSLOVAKIA

*Communicable diseases—October–December, 1925.*—During the three months ended December 31, 1925, communicable diseases were reported in Czechoslovakia as follows:

Disease	Cases	Deaths	Provinces showing greatest number of cases and deaths
Anthrax.....	6	2	Bohemia: Cases, 3; deaths, 2.
Cerebrospinal meningitis.....	23	9	Bohemia: Cases, 8; deaths, 5.
Diphtheria.....	1,504	133	Bohemia: Cases, 783; deaths, 79.
Dysentery.....	87	8	Slovakia: Cases, 44; deaths, 4.
Malaria.....	20	-----	Russia: Cases, 19.
Paratyphoid fever B.....	21	-----	Bohemia: Cases, 20.
Puerperal fever.....	143	72	Bohemia: Cases, 100; deaths, 51.
Scarlet fever.....	4,888	84	Bohemia: Cases, 2,773; deaths, 30.
Trachoma.....	823	-----	Slovakia: Cases, 377.
Typhoid fever.....	1,972	154	Slovakia: Cases, 531; deaths, 44.
Typhus fever.....	146	-----	Russia: Cases, 136.

## ECUADOR

*Plague—Ambato—March 31, 1926.*—Under date of March 31, 1926, plague was reported present at Ambato, Ecuador, with a number of cases and five deaths. The town is situated on the Guayaquil and Quito Railroad, in the mountain region of Ecuador and less than 100 miles from Quito. It is stated to be the center of the fruit producing region in the highlands of Ecuador.

*Plague previously reported present.*—Plague was reported present at Ambato, in October, 1923, with 8 cases, 4 deaths.<sup>1</sup>

## GUADELOUPE (WEST INDIES)

*Smallpox (alastrim).*—Under date of April 23, 1926, smallpox (alastrim) was reported present in the Island of Guadeloupe, French West Indies.

## JAMAICA

*Smallpox (alastrim)—February 28–March 20, 1926.*<sup>2</sup>—During the period February 28 to March 20, 1926, 99 cases of smallpox, reported as alastrim, were notified in the Island of Jamaica, outside of Kingston; 29 cases were notified during the same period in Kingston.

*Other communicable diseases.*—During the same period other diseases were reported as follows: Chicken pox, 28 cases; puerperal fever, one case; tuberculosis (pulmonary), 26 cases; typhoid fever, 33 cases; occurring outside of Kingston.

## LATVIA

*Communicable diseases—January, 1926.*—During the month of January, 1926, communicable diseases were reported in the Republic of Latvia as follows:

Disease	Cases	Disease	Cases
Diphtheria.....	76	Paratyphoid fever.....	2
Dysentery.....	3	Puerperal fever.....	1
Erysipelas.....	8	Scarlet fever.....	244
Measles.....	327	Typhoid fever.....	55
Mumps.....	68	Whooping cough.....	19

Population, 1,844,805.

## MALTA

*Communicable diseases—March, 1926.*—During the month of March, 1926, communicable diseases were reported in the island of Malta as follows:

Disease	Cases	Disease	Cases
Broncho-pneumonia.....	8	Malta fever.....	25
Chicken pox.....	26	Measles.....	154
Diphtheria.....	6	Pneumonia.....	6
Erysipelas.....	4	Scarlet fever.....	3
Lethargic encephalitis.....	2	Trachoma.....	27
Malaria.....	3	Tuberculosis.....	13

Population, civil, estimated: 223,088.

<sup>1</sup> Public Health Reports, Dec. 31, 1923, p. 3098.

<sup>2</sup> Received out of date. See Public Health Reports, Mar. 26, 1926, p. 594.

*Smallpox—October 1, 1925–March 15, 1926.*—During the period from October 1, 1925, to March 15, 1926, 79 cases of smallpox were reported in the Island of Malta.

### UNION OF SOUTH AFRICA

*Plague—Orange Free State—March 14–20, 1926.*—During the week ended March 20, 1926, four cases of plague were reported in the Orange Free State, Union of South Africa, of which one case was in a European. During the same period five deaths from plague were reported, of which three were of cases previously reported (European, two; native, one case). Infection by contact with previous cases was indicated. For distribution of occurrence by locality see below.

### CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER

The reports contained in the following tables must not be considered as complete or final as regards either the lists of countries included or the figures for the particular countries for which reports are given.

#### Reports Received During Week Ended May 14, 1926<sup>1</sup>

#### CHOLERA

Place	Date	Cases	Deaths	Remarks
India:				
Calcutta.....	Mar. 14–27.....	106	88	
Madras.....	Mar. 27–Apr. 3.....	4	4	
Philippine Islands:				
Province.....				
Pampanga.....	Feb. 28–Mar. 3.....	1	1	

#### PLAGUE

Azores:				
St. Michael's.....	Mar. 21–Apr. 3.....	4	2	At Lagoa and Arrifes, outskirts of town, 3 to 7 miles distant.
Ecuador:				
Ambato.....	Mar. 31.....		5	Previously reported present in October, 1923, with 8 cases, 4 deaths.
India:				
Karachi.....	Mar. 28–Apr. 3.....	4	2	
Madras (Presidency).....	Mar. 7–13.....	85	51	
Siam:				
Bangkok.....	Mar. 14–20.....	3	2	
Union of South Africa:				
Orange Free State.....				Mar. 14–20, 1926: Cases, 4; deaths, 5, of which 2 deaths were of Europeans and one native, previously reported <sup>1</sup> as cases, Mar. 7–13, 1923.
Kroonstad District.....	Mar. 14–20.....	1		European.
Winburg District.....	do.....	3	2	Native.

<sup>1</sup> From medical officers of the Public Health Service, American consuls, and other sources.

# **CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued**

## **Reports Received During Week Ended May 14, 1926—Continued**

### **SMALLPOX**

Place	Date	Cases	Deaths	Remarks
Azores:				
Island of Fayal.....	Feb. 22-Apr. 11.....			Present. Reported as alastrim.
Brazil:				
Rio de Janeiro.....	Feb. 21-Mar. 20.....	129	67	June 27, 1925-Mar. 20, 1926: Cases, 1,089; deaths, 580.
Canada:				
Province—				
Ontario.....				
Toronto.....	Apr. 11-17.....	1		Mar. 27-Apr. 24, 1926: Cases, 52; Corresponding period, 1925: Cases, 12.
China:				
Chungking.....	Mar. 21-27.....			Present.
Foochow.....	Mar. 7-20.....			Do.
Hongkong.....	Mar. 14-20.....	2		
Manchuria—				
Fushun.....	Mar. 20-31.....	1		
Liao-Yang.....	do.....	2		
Nanking.....	Mar. 28-Apr. 10.....			Present.
Swatow.....	Mar. 28-Apr. 3.....			Sporadic.
Egypt:				
Cairo.....	Dec. 25-31.....	14		
Do.....	Jan. 1-7.....	3		
Guadeloupe (West Indies).....				Apr. 23, 1926: Present. Alastrim.
India:				
Bombay.....	Mar. 14-20.....	27	9	
Calcutta.....	Mar. 14-27.....	91	58	
Karachi.....	Mar. 28-Apr. 3.....	8	3	
Madras.....	do.....	7	1	
Iraq:				
Bagdad.....	Mar. 6-13.....	1	1	
Jamaica:				
Kingston.....	Feb. 28-Mar. 20.....	29		Feb. 28-Mar. 20, 1926: Cases, 99; outside of Kingston.
Japan:				
Kobe.....	Mar. 14-20.....	1		
Yokohama.....	Mar. 14-27.....	13	1	To Mar. 27, 1926: Cases, 48; deaths, 6.
Malta.....				Oct. 1, 1925-Mar. 15, 1926: Cases 79.
Mexico:				
Aguscalientes.....	Apr. 11-17.....		1	
Guadalajara.....	Apr. 13-19.....		1	
Mexico City.....	Apr. 4-10.....	2		
San Luis Potosi.....	Apr. 18-24.....		4	Including municipalities in Federal District
Persia:				
Teheran.....	Jan. 29-Feb. 19.....		29	
Siam:				
Bangkok.....	Mar. 14-20.....	8	7	
Spain:				
Valencia.....	Apr. 11-17.....	2		
Trinidad.....				Mar. 21-Apr. 3, 1926: Cases, 4.

### **TYPHUS FEVER**

Chile:				
Antofagasta.....	Apr. 11-17.....	1		
Mexico:				
Mexico City.....	Mar. 23-Apr. 10.....	11		Including municipalities in Federal District.
Palestine:				
Ekron.....	Mar. 30-Apr. 5.....	1		
Peru:				
Arequipa.....	Mar. 1-31.....		1	

# CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued

Reports Received from December 26, 1925, to May 7, 1926<sup>1</sup>

## CHOLERA

Place	Date	Cases	Deaths	Remarks
Chosen.....	October-November, 1925.	12	5	
French Settlements in India.....	Dec. 1-31.....	880	712	
India.....				Oct. 18, 1925, to Jan. 2, 1926: Cases, 21,316; deaths, 12,371.
Calcutta.....	Nov. 1-28.....	101	89	Jan. 3-Feb. 6, 1926: Cases, 17,858; deaths, 10,059.
Do.....	Dec. 6-26.....		54	
Do.....	Dec. 27-Jan. 16.....		41	
Do.....	Jan. 24-Mar. 13.....	321	290	
Madras.....	Nov. 15-Jan. 2.....	174	70	
Do.....	Jan. 3-Mar. 27.....	140	85	
Rangoon.....	Nov. 8-Dec. 5.....	4	4	
Do.....	Jan. 24-Mar. 20.....	9	6	
Indo-China.....				September-December, 1925: Cases, 11; deaths, 7.
Province—				
Annam.....	Sept. 1-30.....	2	2	
Cambodia.....	Dec. 1-31.....	2	1	
Cochin China.....	Sept. 1-Dec. 31.....	6	4	
Saigon.....	Jan. 4-17.....	2	2	
Tonkin.....	Sept. 1-Nov. 30.....	3		Including 100 square kilometers of surrounding country.
Japan.....	Aug. 30-Oct. 17.....	409		
Do.....	Oct. 25-Dec. 26.....	113		
Philippine Islands:				
Manila.....	Nov. 9-Jan. 3.....	15	10	
Do.....	Jan. 4-Mar. 6.....	3	27	
Province—				
Bataan.....	Nov. 30-Dec. 26.....	29	25	
Do.....	Jan. 2-16.....	1	1	
Batangas.....	Jan. 24-Feb. 20.....	13	13	
Bohol.....	Jan. 23-30.....	1	1	
Bulacan.....	Oct. 19-Nov. 7.....	92	64	
Do.....	Nov. 23-Dec. 31.....	200	88	
Do.....	Jan. 2-30.....	6	6	
Laguna.....	Nov. 23-Dec. 26.....	18	14	
Do.....	Jan. 24-Feb. 6.....	5	6	
Leyte.....	Jan. 3-9.....	2	2	
Mindoro.....	Dec. 20-31.....	35	30	
Nueva Ecija.....	Nov. 30-Dec. 13.....	7	5	
Pampanga.....	Nov. 1-7.....	1	1	
Do.....	Nov. 23-Dec. 31.....	113	85	
Do.....	Jan. 2-Feb. 20.....	38	34	
Rizal.....	Sept. 27-Nov. 21.....	75	21	
Do.....	Dec. 21-30.....	14	11	
Do.....	Jan. 3-Feb. 20.....	59	30	
Romblon.....	Nov. 8-Dec. 13.....	27	14	
Russia.....	May-June.....	7		
Do.....	July-August.....	4		
Siam:				
Bangkok.....	Oct. 4-Nov. 14.....	108	68	
Do.....	Nov. 22-Dec. 26.....	270	149	
Do.....	Dec. 27-Mar. 13.....	398	275	
On vessel:				
Steamship.....	Oct. 3.....	9		Arrived at Bangkok, Siam: Cases in coolie passengers.

## PLAGUE

Argentina.....				
Buenos Aires.....	Jan. 24-30.....	1		Jan. 24-30, 1926: 6 cases, occurring in interior Provinces of Salta and Santa Fe.
Azores:				
St. Michaels.....	Jan. 17-30.....	4	2	
Do.....	Feb. 7-13.....	1		In outskirts of city of Ponta Delgada.
Belgium:				
Vilvorde.....	Dec. 1-8.....	1	1	
Brazil:				
Bahia.....	Nov. 8-Dec. 28.....	3	1	
Do.....	Dec. 27-Jan. 30.....	4	2	
Santos.....	Dec. 8-21.....		2	
Sao Paulo.....	Reported Mar. 25.....	4	1	

<sup>1</sup> From medical officers of the Public Health Service, American consuls, and other sources.

# CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued

Reports Received from December 26, 1925, to May 7, 1926—Continued

## PLAGUE—Continued

Place	Date	Cases	Deaths	Remarks
<b>British East Africa:</b>				
Kenya—				
Kisumu.....	Nov. 22-Dec. 5.....	1	2	
Do.....	Jan. 31-Feb. 27.....	4	3	
Uganda Protectorate.....	Sept. 1-Dec. 31.....	468	426	
<b>Canary Islands:</b>				
La Laguna.....	Dec. 24.....	3	2	
Las Palmas.....	do.....	1	1	
Do.....	Jan. 7.....	1	1	
Santa Cruz de Tenerife.....	Dec. 18-27.....	3	3	
Do.....	Dec. 28-Feb. 1.....	3	3	
<b>Celebes:</b>				
Makassar.....	Dec. 20-Feb. 2.....	12	12	Netherlands East Indies.
<b>Ceylon:</b>				
Colombo.....	Nov. 15-Dec. 5.....	3	3	1 plague rodent.
Do.....	Dec. 27-Jan. 16.....	2	2	
Do.....	Jan. 24-Mar. 6.....	5	5	Feb. 14-20, 1926: Two plague rodents.
<b>China:</b>				
Nanking.....	Nov. 15-Mar. 27.....			Prevalent.
<b>Ecuador:</b>				
Eloy Alfaro.....	Jan. 1-15.....	1	1	
Guayaquil.....	Nov. 1-Dec. 31.....	31	12	Rats taken, Nov. 1-Dec. 31, 1925, 49,370; rats found infected, 281.
Do.....	Jan. 1-Mar. 31.....	62	27	Rats taken, Jan. 1-Mar. 31, 1926, 64,002; rats found infected, 543.
Recreo (country estate).....	Jan. 1-Mar. 15.....	1	1	Jan. 1-Dec. 9, 1925: Cases, 138.
<b>Egypt:</b>				
Alexandria.....	Mar. 10-18.....	2	1	
Boni Suef.....	Nov. 18.....	1	1	
Fayoum Province.....	Dec. 3-9.....	1	1	
Gharbia Province.....	Mar. 9-30.....	5	3	
Mina Province.....	Mar. 4.....	1	1	
Suez.....	Mar. 27.....	1	1	
<b>Greece:</b>				
Athens.....	Nov. 1-30.....	18	4	Including Piræus.
Do.....	Jan. 1-Mar. 31.....	25	4	
Herakleion.....	Feb. 4.....	1	1	On island of Crete.
Patras.....	Nov. 13-Dec. 12.....	4	1	
<b>Hawaii Territory:</b>				
Hawaii—	Feb. 2.....			1 plague-infected rodent found near Hamakua Mill Co.
Kakuihaele.....	Mar. 19.....	1	1	
Honokaa.....	Mar. 16.....	2	2	1 death suspected plague.
Paaulo.....				Jan. 29, 1926: Plague-infected rat found in vicinity.
<b>India:</b>				
Bombay.....	Dec. 6-12.....	1	1	Oct. 18, 1925, to Jan. 2, 1926: Cases, 15,135; deaths, 10,677.
Do.....	Jan. 3-Feb. 20.....		8	Jan. 3-Feb. 6, 1926: Cases, 17,402; deaths, 13,598.
Do.....	Mar. 7-13.....	4	2	
Calcutta.....	Dec. 6-12.....		1	
Karachi.....	Nov. 1-Dec. 19.....	4	3	
Do.....	Feb. 21-Mar. 6.....	3	3	
Madras Presidency.....	Oct. 25-Nov. 7.....	75	41	
Do.....	Nov. 15-21.....	35	22	
Do.....	Dec. 20-26.....	168	64	
Do.....	Jan. 3-Feb. 20.....	971	617	
Do.....	Feb. 20-Mar. 6.....	104	64	
Rangoon.....	Oct. 25-Dec. 26.....	23	15	
Do.....	Dec. 27-Mar. 20.....	93	83	
<b>Indo-China:</b>				
Province.....				September-December, 1925: Cases, 28; deaths, 26.
Cambodia.....	Sept. 1-Nov. 30.....	13	13	
Cochin China.....	Sept. 1-Dec. 31.....	15	13	
<b>Iraq:</b>				
Bagdad.....	Dec. 13-Jan. 2.....	7	3	
Do.....	Jan. 10-Mar. 13.....	75	44	
<b>Java:</b>				
Batavia.....	Oct. 24-Nov. 6.....	94	89	Province.
Do.....	Nov. 14-Jan. 1.....	315	297	
Do.....	Jan. 2-Mar. 12.....	483	468	
Cheribon.....	Sept. 27-Oct. 17.....		166	
Do.....	Nov. 15-Dec. 26.....		198	
Do.....	Jan. 3-Feb. 6.....		8	

# CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued

Reports Received from December 26, 1925, to May 7, 1926—Continued

## PLAGUE—Continued

Place	Date	Cases	Deaths	Remarks
<b>Java—Continued.</b>				
Djakarta	Oct. 20–Nov. 9	—	—	Epidemic in 1 locality.
Kediri	Dec. 7	—	—	Do.
Koenigan	Dec. 27–Jan. 16	—	114	
Pekalongan	Sept. 27–Oct. 17	—	42	
Do.	Nov. 8–Dec. 20	—	252	
Probolinggo	Feb. 12	—	—	Epidemic. Port.
Rembang	Oct. 20	—	—	Do.
Surabaya	Oct. 11–Dec. 26	59	59	
Do.	Dec. 27–Feb. 27	40	40	
Tegal	Sept. 27–Oct. 17	6	6	
Do.	Nov. 8–Dec. 26	—	31	
<b>Madagascar</b>				
Province—				Nov. 1–December, 1925: Cases, 632; deaths, 593. Jan. 1–31, 1926: Cases, 611; deaths, 565.
Ambositra	Dec. 16–31	9	7	
Do.	Jan. 1–15	2	2	
Fort Dauphin	Sept. 16–30	6	3	
Do.	Jan. 16–Feb. 15	2	2	
Itasy	Sept. 16–Oct. 30	20	20	
Do.	Nov. 16–Dec. 31	34	34	
Do.	Jan. 1–15	29	29	
Do.	Feb. 1–15	29	29	
Moramanga	Sept. 16–Dec. 31	49	48	
Do.	Jan. 1–Feb. 28	46	44	
Tananarive				Sept. 16–Nov. 30, 1925: Cases, 368; deaths, 341. Dec. 16–31, 1925: Cases, 152; deaths, 143. Jan. 1–Feb. 28, 1926: Cases, 480; deaths, 407.
<b>Town—</b>				
Tamatave (Port)	Sept. 16–Nov. 30	12	11	
Do.	Feb. 1–15	4	2	
Tananarive	Sept. 16–30	2	2	
Do.	Nov. 1–30	11	11	
Do.	Jan. 1–Feb. 28	19	19	
<b>Mauritius Island</b>				
Moca	Dec. 1–31	2	2	
Pamplamousses	Oct. 1–Nov. 30	3	2	
Port Louis	Oct. 1–Dec. 31	13	9	
Rivière du Rempart	October	2	—	
Nigeria	Aug. 1–Nov. 30	559	419	
<b>Persia:</b>				
Teheran	Oct. 21–Nov. 21	—	12	
<b>Peru</b>				
Huacho	Jan. 26	15	—	January, February, 1926: Cases, 290; deaths, 111.
Lima	Jan. 1–31	20	—	Port 60 miles north of Callao. In hospital. Some cases in Province.
Mollendo	do	—	—	12 or 15 cases reported unofficially.
<b>Russia</b>				
Do.	May–June	67	—	
<b>Senegal</b>				
Do.	July–October	166	—	
Do.	September–October	45	25	
<b>Siam</b>				
Bangkok	Aug. 23–Dec. 26	65	53	
Do.	Nov. 15–23	3	3	
Do.	Jan. 3–30	38	33	
Do.	Feb. 7–20	6	5	
Do.	Feb. 28–Mar. 13	5	—	
<b>Straits Settlements:</b>				
Singapore	Nov. 1–Dec. 5	8	8	
Do.	Jan. 3–9	2	2	
<b>Syria:</b>				
Beirut	Nov. 11–20	1	—	
Do.	Jan. 21–31	1	—	
<b>Union of South Africa</b>				
Cape Province—				Mar. 7–13, 1926. Cases, 3; European, 2
Kimberley district	Dec. 13–19	1	—	
Middleburg district	Dec. 6–12	1	—	European
Steynsburg district	Nov. 15–21	1	—	Native. On farm.
Winburg district	Feb. 21–27	1	—	
<b>Orange Free State</b>				
Boshof district	Nov. 29–Dec. 5	1	1	In native
Bothaville district	Dec. 6–12	1	1	Native. On farm.
Hoopstad	Mar. 7–13	1	—	European.
Winburg	do	2	—	On farms.



# CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued

Reports Received from December 26, 1925, to May 7, 1926—Continued

## PLAGUE—Continued

Place	Date	Cases	Deaths	Remarks
On vessel: Steamship Cid.....				Plague rat. Jan. 29, 1926. At Buenaventura, Colombia. Rat was killed while jumping ashore from vessel.

## SMALLPOX

Algeria:				
Algiers.....	Nov. 21-Dec. 31.....	177		
Do.....	Jan. 1-10.....	64		
Do.....	Jan. 21-Mar. 20.....	72		
Arabia:				
Aden.....	Nov. 29-Dec. 5.....	1		Imported.
Do.....	Jan. 10-Mar. 6.....	10	1	
Argentina:				
Rosario.....	October.....		1	
Australia:				
Queensland—				
Brisbane.....	Dec. 9-15.....	1		
Bahamas.....	Feb. 23.....			In Nassau district. Stated to have been imported.
Brazil:				
Manaos.....	Dec. 1-31.....		12	
Do.....	Jan. 31-Feb. 20.....		6	
Para.....	Jan. 10-Mar. 6.....	28	6	
Rio de Janeiro.....	Nov. 1-28.....	134	72	
Do.....	Dec. 6-26.....	65	26	
Do.....	Dec. 27-Feb. 20.....	195	131	
British East Africa:				
Kenya—				
Mombasa.....	Nov. 15-Dec. 19.....	14	6	
Do.....	Dec. 27-Jan. 2.....	1		From mainland.
Uganda Protectorate.....	Sept. 1-Oct. 31.....	8	4	
British South Africa:				
Northern Rhodesia.....	Jan. 5-11.....	2		
Southern Rhodesia.....	Nov. 13-Dec. 23.....	3		
Canada.....				Sept. 13-Jan. 2 In 7 Provinces, 186 cases. Jan. 3-Feb. 27, 1926: Cases, 277.
Alberta.....				Jan. 3-Apr. 17, 1926: Cases, 61.
Calgary.....	Dec. 13-19.....	1		From Drumbeller, vicinity of Calgary.
British Columbia—				
Vancouver.....	Jan. 4-Mar. 27.....	2		
Victoria.....	Mar. 21-27.....	2		
Manitola.....				Jan. 3-Apr. 17, 1926. Cases, 52.
Winnipeg.....	Dec. 13-19.....	2		
Do.....	Jan. 3-Apr. 10.....	16	1	
New Brunswick—				
Northumberland.....	Dec. 6-13.....	1		
Ontario.....				Dec. 1-31, 1925: Cases, 32. Jan. 3-Apr. 17, 1926: Cases 224.
Admaston.....	Jan. 1-Feb. 1.....	16		Township.
Alice and Fraser.....	Feb. 1-28.....	6		Do.
King.....	do.....	7		Do.
Wilmot.....	do.....	6		Do.
Belleville.....	do.....	4		
Kingston.....	Mar. 8-14.....	1		
Kitchener.....	do.....	26		
North Bay.....	Feb. 14-Mar. 14.....	7		
Ottawa.....	Dec. 6-12.....	2		
Do.....	Jan. 3-Feb. 6.....	2		
Sarnia.....	Mar. 14-Apr. 17.....	4		
Toronto.....	Dec. 27-Jan. 2.....	1		
Do.....	Jan. 3-Mar. 20.....	26		
Trenton.....	do.....	15		
Saskatchewan.....				Jan. 3-Apr. 17, 1926: Cases, 107.
Moose Jaw.....	Jan. 3-Mar. 20.....	2		
Regina.....	Jan. 24-Mar. 13.....	3		
Saskatoon.....	Feb. 14-20.....	1		
Ceylon:				
Colombo.....	Dec. 6-12.....	1		Port case.
Do.....	Jan. 3-Feb. 6.....	5		

# CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued

Reports Received from December 26, 1925, to May 7, 1926—Continued

## SMALLPOX—Continued

Place	Date	Cases	Deaths	Remarks
Chile:				
Punta Arenas.....	Dec. 13-26.....		8	
Do.....	Dec. 27-Jan. 2.....		4	
China:				
Amoy.....	Oct. 25-Dec. 19.....		1	
Do.....	Jan. 10-Mar. 20.....		16	
Antung.....	Dec. 7-20.....	2		
Changsha.....	Feb. 21-27.....			Present.
Chungking.....	Nov. 15-27.....			Do.
Do.....	Feb. 23-Mar. 20.....			Do.
Foochow.....	Nov. 1-Feb. 20.....			Do.
Hankow.....	Nov. 14-Dec. 26.....	4		
Do.....	Jan. 10-Mar. 6.....	3		
Hongkong.....	Nov. 22-Dec. 26.....	4		
Do.....	Jan. 3-Mar. 13.....	11	5	
Manchuria—				
An-shan.....	Dec. 6-12.....	1		
Do.....	Jan. 10-Mar. 20.....	9		
Changchun.....	do.....	21		
Dairen.....	Oct. 19-Dec. 27.....	73	15	
Do.....	Dec. 28-Mar. 7.....	77	24	
Fushun.....	Jan. 17-Mar. 20.....	2		
Harbin.....	Jan. 1-Mar. 18.....	10		
Kai-yuan.....	Jan. 10-30.....	4		
Kungchuling.....	Jan. 31-Feb. 20.....	2		
Lio-yang.....	Jan. 17-Mar. 20.....	3		
Mukden.....	Oct. 24-Nov. 15.....	1		
Do.....	Jan. 24-Feb. 27.....	4		
Suping Kai.....	Mar. 14-20.....	1		
Tieh-ling.....	Oct. 26-Nov. 15.....	2		
Nanking.....	Nov. 21-Dec. 26.....			Do.
Do.....	Dec. 27-Mar. 27.....			Do.
Shanghai.....	Oct. 25-Jan. 2.....	37	36	
Do.....	Jan. 3-Mar. 13.....	56	131	Cases, foreign only.
Swatow.....	Nov. 22-Mar. 20.....			Prevalent.
Tientsin.....	Nov. 1-Dec. 19.....	2		
Do.....	Jan. 23-Feb. 27.....	2		
Chosen:				
Seishin.....	Jan. 1-Feb. 23.....	43	27	
Egypt:				
Alexandria.....	Dec. 3-31.....	5	2	
Do.....	Jan. 8-14.....	2	1	
Do.....	Jan. 29-Mar. 4.....	22	6	
Port Said.....	Feb. 26-Mar. 4.....	1		
Estonia.....				November, 1925: Cases, 3.
France.....				September-December, 1925:
Havre.....	Jan. 25-31.....		9	Cases, 253
Paris.....	Mar. 1-20.....	9	1	
Gold Coast.....	September, De- cember.....	58	5	
Great Britain:				
England and Wales.....				Nov. 15-Dec. 26, 1925: Cases, 790.
Hull.....	Dec. 27-Jan. 23.....	29		Dec. 27-Apr. 10, 1926: Cases, 3,801.
Do.....	Feb. 7-Mar. 27.....	9		
Leeds.....	Jan. 14-Feb. 6.....	4		
London.....	Jan. 31-Feb. 6.....		1	
Newcastle-on-Tyne.....	Nov. 29-Dec. 19.....	6		
Do.....	Dec. 27-Apr. 10.....	40	1	
Nottingham.....	Nov. 22-Dec. 26.....	9		
Do.....	Dec. 27-Mar. 13.....	6		
Sheffield.....	Nov. 22-Dec. 12.....	7		
Do.....	Dec. 20-26.....	3		
Do.....	Dec. 27-Mar. 20.....	18		
South Shields.....	Feb. 9.....			Reported present in severe form.
Greece.....				Oct. 1-31, 1925: Cases, 16.
Athens.....	Nov. 1-Dec. 31.....	18	1	
Do.....	Jan. 1-Mar. 31.....	87	6	
Kalamata.....	Mar. 1-7.....	1		From Patras.
Saloniki.....	Feb. 16-Mar. 15.....		2	
India.....				
Bombay.....	Nov. 8-Dec. 26.....	26	20	Oct. 18-Dec. 26, 1925: Cases, 19,472; deaths, 4,440. Dec. 27, 1925-Feb. 6, 1926: Cases, 36,335; deaths, 11,491.
Do.....	Dec. 27-Mar. 13.....	200	113	
Calcutta.....	Nov. 8-Dec. 26.....	48	25	
Do.....	Dec. 27-Mar. 13.....	496	308	

# CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued

Reports Received from December 26, 1925, to May 7, 1926—Continued

## SMALLPOX—Continued

Place	Date	Cases	Deaths	Remarks
<b>India—Continued.</b>				
Karachi.....	Nov. 1-21.....	23	—	
Do.....	Nov. 29-Dec. 5.....	4	2	
Do.....	Dec. 13-19.....	3	—	
Do.....	Dec. 29-Mar. 27.....	94	29	
Madras.....	Nov. 15-Dec. 26.....	17	5	
Do.....	Dec. 27-Mar. 27.....	121	22	
Rangoon.....	Oct. 25-Nov. 23.....	3	—	
Do.....	Dec. 6-26.....	4	1	
Do.....	Dec. 27-Jan. 16.....	13	1	
Do.....	Jan. 24-Mar. 6.....	70	17	
Indo-China.....				September-November, 1925: Cases, 346; deaths, 86.
Province.....	Sept. 1-Dec. 31.....	232	44	
Annam.....	do.....	84	34	
Cochin China.....	do.....	106	51	
Saigon.....	Dec. 21-27.....	2	1	
Do.....	Jan. 1-Mar. 7.....	11	1	
Tonkin.....	Sept. 1-Dec. 31.....	153	2	Including 100 kilometers of surrounding country.
Iraq.....				Sept. 6-Oct. 17, 1925: Cases, 81; deaths, 40.
Bagdad.....	Nov. 1-Dec. 26.....	19	15	
Do.....	Dec. 27-Feb. 27.....	19	10	
Basra.....	do.....	52	42	
Italy.....				Aug. 2, 1925-Jan. 2, 1926: Cases, 52. Jan. 3-16, 1926: Cases, 12.
Catania.....	Feb. 15-28.....	1	1	
Genoa.....	Jan. 21-Feb. 10.....	1	—	
Rome.....	Oct. 12-25.....	1	—	
Jamaica.....				Nov. 29-Dec. 25, 1925: Cases, 95. Dec. 27, 1925-Feb. 27, 1926: Cases, 260. Mar. 21-Apr. 3, 1926: Cases, 66. Reported as alastrim.
Kingston.....	Nov. 29-Dec. 26.....	43	—	Reported as alastrim.
Do.....	Dec. 27-Jan. 30.....	48	—	Do.
Do.....	Mar. 21-27.....	5	—	Do.
Japan.....				
Nagasaki.....	Feb. 15-21.....	1	—	
Taiwan.....	Nov. 11-Dec. 10.....	3	—	
Yokohama.....	Dec. 14-20.....	1	—	
Do.....	Feb. 23-Mar. 14.....	46	5	
Java.....				
Batavia.....	Oct. 24-Dec. 25.....	8	—	
Do.....	Feb. 20-Mar. 5.....	5	—	
Buitenzorg.....	Nov. 29-Dec. 5.....	1	—	
Cheribon.....	Nov. 8-Dec. 12.....	2	—	
Do.....	Jan. 31-Feb. 6.....	11	1	
Kraksaan.....	Oct. 11-17.....	2	—	
Malang.....	Oct. 11-Dec. 26.....	3	2	
Do.....	Dec. 27-Jan. 16.....	4	—	
North Bantam.....	Oct. 4-17.....	1	—	
Pekalongan.....	Oct. 25-31.....	—	1	
Pontianak.....	Jan. 31-Feb. 6.....	1	—	
Probolinggo.....	Oct. 11-17.....	1	—	
South Bantam.....	do.....	1	—	
Surabaya.....	Oct. 11-Dec. 26.....	633	104	
Do.....	Dec. 27-Feb. 13.....	131	40	
Do.....	Oct. 4-10.....	9	1	
Tegal.....				December, 1925: Cases, 3.
Latvia.....	Nov. 1-Dec. 21.....	21	3	
Malta.....	Jan. 1-Feb. 23.....	20	—	
Do.....				July-September, 1925: Deaths, 1,157.
Mexico.....				
Aguascalientes.....	Dec. 13-Jan. 2.....	4	3	
Do.....	Jan. 3-30.....	—	12	
Do.....	Feb. 14-Mar. 27.....	—	7	
Durango.....	Dec. 1-31.....	—	2	
Do.....	Jan. 1-31.....	—	16	
Gusdalajara.....	Dec. 27-Apr. 6.....	—	—	
Mexico City.....	Nov. 28-Dec. 5.....	1	—	Including municipalities in Federal District.
Do.....				Do.
Do.....	Jan. 3-Mar. 27.....	7	—	
Saltillo.....	Apr. 4-10.....	1	—	
San Luis Potosi.....	Jan. 17-Mar. 20.....	—	53	
Do.....	Mar. 23-Apr. 17.....	15	14	
Tampico.....	Dec. 21-Jan. 2.....	1	1	
Do.....	Jan. 2-Mar. 10.....	8	—	
Torreón.....	Nov. 1-Dec. 31.....	—	51	
Do.....	Jan. 1-Mar. 31.....	—	65	
Vera Cruz.....	Mar. 29-Apr. 4.....	5	1	

# **CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued**

**Reports Received from December 26, 1925, to May 7, 1926—Continued**

## **SMALLPOX—(continued)**

Place	Date	Cases	Deaths	Remarks
Netherlands:				
The Hague.....	Jan. 30-Mar. 6.....	2	1	
Nigeria.....				August-November, 1925: Cases, 347; deaths, 6.
Palestine:				
Hebron.....	Jan. 26-Feb. 1.....	2		
Tiberias.....	Feb. 9-15.....	1		
Persia:				
Teheran.....	July 23-Dec. 22.....		775	
Do.....	Dec. 23-Jan. 20.....		70	
Peru:				
Arequipa.....	Oct. 1-Dec. 31.....		2	
Poland.....				Nov. 1-28, 1925: Cases, 9. Jan. 1-16, 1926: Cases, 4.
Portugal.....				Mar. 1-28, 1926: Deaths, 6.
Lisbon.....	Oct. 4-31.....	124		
Do.....	Nov. 16-Dec. 27.....		60	
Do.....	Nov. 14-Dec. 26.....	187		
Do.....	Dec. 27-Mar. 27.....	116	29	
Oporto.....	Nov. 23-Dec. 19.....	2	3	
Do.....	Dec. 27-Mar. 6.....	3	1	
Rumania.....	August-October.....	3		
Russia.....				May-June, 1925: Cases, 2,333.
Do.....	July-October.....	1,563		
Siam.....				July 12-Sept. 5, 1925: Cases, 21; deaths, 6.
Bangkok.....	Dec. 20-25.....	3	1	
Do.....	Dec. 26-Mar. 6.....	81	37	
Sierra Leone:				
Konno district.....	Dec. 10-31.....	5		
Spain:				
Madrid.....	Year 1925.....		18	
Do.....	Jan. 1-31.....		1	
Malaga.....	Nov. 29-Dec. 5.....		2	
Do.....	Dec. 27-Jan. 2.....		1	
Valencia.....	Dec. 20-26.....	1		
Do.....	Dec. 27-Jan. 2.....		1	
Do.....	Jan. 10-Feb. 6.....	9		
Do.....	Feb. 14-Apr. 10.....	9		
Straits Settlements:				
Penang.....	Mar. 28-Apr. 3.....		1	
Singapore.....	Dec. 20-26.....	1		
Do.....	Jan. 10-16.....	2	1	
Sumatra:				
Medan.....	Feb. 14-27.....	2		
Switzerland.....				June 28-Nov. 21, 1925: Cases, 62; Dec. 27, 1925-Jan. 30, 1926: Cases, 37.
Lucerne.....	Oct. 1-Nov. 30.....	8		
Do.....	Jan. 1-31.....	5		
Zurich.....	Dec. 27-Jan. 2.....	1		
Trinidad (West Indies):				
Port of Spain.....	Jan. 1-Mar. 20.....	8		
Tunisia:				
Tunis.....	Nov. 21-30.....	2		
Do.....	Dec. 11-31.....	10	1	
Do.....	Jan. 1-Feb. 20.....	6		
Union of South Africa:				
Cape Province.....	Jan. 17-23.....			Outbreaks.
Orange Free State—				
Kuruman district.....	Jan. 10-16.....			Do.
Ladybrand district.....	Dec. 27-Jan. 2.....			Do.
Transvaal—				
Belfast district.....	do.....			Do.
Germiston district.....	Jan. 2-9.....			Do.
Pretoria district.....	Dec. 6-12.....			Outbreaks. In native compound.
On vessel.....	Feb. 21.....	2		Mexican steamer Montezuma, at Port of Ensenada, Mexico.

# CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued

Reports Received from December 26, 1925, to May 7, 1926—Continued

## TYPHUS FEVER

Place	Date	Cases	Deaths	Remarks
Algeria:				
Algiers.....	Nov. 1-Dec. 20.....	2		
Do.....	Jan. 1-Mar. 31.....	11		
Argentina:				
Rosario.....	Oct. 13-Dec. 31.....	2		
Bulgaria.....	Sept. 1-Dec. 31.....	50	3	
Sofia.....	Dec. 25-31.....	1		
Do.....	Jan. 8-14.....	2		
Canary Islands:				
Santa Cruz de Tenerife.....	Mar. 8-14.....	1		
Chile:				Dec. 15-31, 1925: Cases, 46.
Achao.....	Dec. 15-31.....	1		
Bulnes.....	do.....	1		
Chillan.....	do.....	24		
Concepcion.....	do.....	6		
Linares.....	do.....	1		
Los Angeles.....	do.....	5		
Penco.....	do.....	2		
San Carlos.....	do.....	1		
Talca.....	do.....	1		
Valparaiso.....	Nov. 29-Jan. 2.....	5	2	
Do.....	Mar. 21-27.....	1		
China:				
Antung.....	Nov. 29-Dec. 27.....	5	1	
Do.....	Jan. 4-Mar. 14.....	11		
Hongkong.....	Dec. 27-Jan. 2.....	1		
Manchuria—				
Harbin.....	Dec. 17-Feb. 4.....	3		
Shanghai.....	Mar. 14-20.....	1		
Czechoslovakia.....	October-December.....	140	1	
Egypt:				
Alexandria.....	Jan. 8-Feb. 25.....	2		
Cairo.....	Nov. 5-Dec. 16.....	3	2	
Port Said.....	Nov. 19-25.....	1		
Do.....	Mar. 12-18.....	1		
Estonia.....	Jan. 1-31.....	0		
Finland.....				October, 1925: 1 case.
France.....	July-October.....	4		
Greece.....				December, 1925: Cases, 12.
Athens.....	Nov. 1-30.....	11	2	
Do.....	Jan. 1-Mar. 31.....	45	9	
Saloniki.....	Dec. 29-Jan. 4.....	1		
Do.....	Feb. 2-8.....	1		
Hungary.....				November-December, 1925: Cases, 16.
Ireland:				
Cork County—				
Cork.....	Dec. 26-Jan. 1.....	2		
Do.....	Jan. 2-8.....	5		
Dumaway.....	Nov. 14.....	1		
Galway County.....	Oct. 17.....	1		
Kerry County—				
Listowel.....	Mar. 7-13.....	1		Rural district.
Wexford County—				
Gorey.....	do.....	1		Do.
Latvia.....	October-December.....	12		
Riga.....	Oct. 1-31.....	2		
Lithuania.....				September-October, 1925: Cases, 9; deaths, 1.
Mexico.....				July-September, 1925: Deaths, 90.
Aguaascalientes.....	Dec. 14-19.....	1		
Durango.....	Dec. 1-31.....	1		
Do.....	Jan. 1-31.....	1		
Guadalajara.....	Dec. 8-28.....	2		
Do.....	Dec. 29-Jan. 4.....	1		
Mexico City.....	Nov. 22-Dec. 26.....	50		
Do.....	Dec. 27-Mar. 20.....	89		Including municipalities in Federal District.
San Luis Potosi.....	Feb. 6-13.....	1		Do.
Tempico.....	Dec. 21-Jan. 10.....	1		
Torreón.....	November, 1925.....	1		
Xera Cruz.....	Feb. 12.....	1		

# **CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued**

Reports Received from December 26, 1925, to Mar 7, 1926—Continued

## **TYPHUS FEVER—Continued**

Place	Date	Cases	Deaths	Remarks
Morocco.....	August-December	93		
Norway.....				November-December, 1925: Cases, 2.
Palestine:				
Gaza.....	Dec. 18.....	1		
Haifa.....	Mar. 16-22.....	1		
Jaffa.....	Dec. 1-7.....	1		
Do.....	Feb. 23-Mar. 1.....	1		
Nazareth.....	Nov. 3-9.....	1		
Ramleh.....	Mar. 16-22.....	1		
Safad.....	Nov. 24-30.....	1		
Tel-Aviv.....	do.....	1		
Do.....	Mar. 9-15.....	1		
Tiberias.....	do.....	2		
Peru:				
Arequipa.....	October-December		3	
Do.....	Feb. 1-25.....	1		
Poland.....	Oct. 11-Jan. 2.....	462	44	
Do.....	Jan. 3-15.....	190	14	
Rumania.....				July-October, 1925: Cases, 13; deaths, 22.
Constantza.....	Feb. 1-Mar. 10.....	2		May-June, 1925: Cases, 10, 680.
Russia.....				July-October, 1925: Cases, 6,035.
Do.....				
Tunisia:				
Tunis.....	Mar. 21-31.....	3		
Turkey:				
Constantinople.....	Jan. 24-30.....	3		
Do.....	Feb. 9-22.....	5	3	From unofficial sources (press).
Union of South Africa.....				October, 1925: Cases, 78; deaths, 7 (colored). Cases, European, 7. December, 1925: Cases, 78; deaths, 9. Colored: Cases, 73; deaths, 9. January-February, 1926: Cases, 163; deaths, 28.
Cape Province.....	Oct. 1-31.....	63	5	Colored.
Do.....	Nov. 8-Dec. 31.....	47	8	
Do.....	Jan. 1-Feb. 28.....	126	20	Do.
Grahamstown.....	Jan. 24-30.....	2		
Middleburg district.....	Dec. 6-12.....	1		European. On farm.
Natal.....	Oct. 1-Dec. 5.....	1		
Do.....	Jan. 1-Feb. 28.....	11	1	Colored.
Durban.....	Jan. 3-Mar. 6.....	4		
Orange Free State.....	Nov. 28-Dec. 5.....	23	1	
Do.....	Dec. 1-31.....	8	1	
Do.....	Jan. 1-Feb. 28.....	8	3	Do.
Bethulia district.....	Dec. 6-12.....			Outbreaks.
Bothaville district.....	do.....			Native. On farm.
Transvaal.....	Oct. 1-31.....	1		
Do.....	Dec. 1-31.....	18		
Do.....	Feb. 1-28.....	8	4	
Bloemhof district.....	Dec. 27-Jan. 2.....			Outbreaks. On farm.
Johannesburg.....	Mar. 1-20.....	3		
Yugoslavia.....				Jan. 1-Feb. 21, 1926: Cases, 81; deaths, 12.

## **YELLOW FEVER**

Gold Coast.....	Sept. 1-Dec. 31.....	4	3	
Nigeria.....	August-October.....	3	2	
Senegal.....	November, 1925.....	3	2	

# **CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued**

**Reports Received from December 26, 1925, to May 21, 1926—Continued**

## **SMALLPOX—Continued**

Place	Date	Cases	Deaths	Remarks
Gold Coast.....	September, December.	58	5	
Great Britain:				
England and Wales.....				Nov. 15-Dec. 26, 1925: Cases, 790; Dec. 27-Apr. 24, 1926: Cases 4,144.
Hull.....	Dec. 27-Jan. 23.....	29		
Do.....	Feb. 7-Mar. 27.....	9		
Leeds.....	Jan. 14-Feb. 6.....	4		
London.....	Jan. 31-Feb. 6.....		1	
Newcastle-on-Tyne.....	Nov. 29-Dec. 10.....	6		
Do.....	Dec. 27-Apr. 10.....	40	1	
Nottingham.....	Nov. 22-Dec. 26.....	9		
Do.....	Dec. 27-Mar. 13.....	6		
Sheffield.....	Nov. 22-Dec. 12.....	7		
Do.....	Dec. 20-26.....	3		
Do.....	Dec. 27-Mar. 20.....	18		
South Shields.....	Feb. 9.....			Reported present in severe form. Oct. 1-31, 1925: Cases, 16.
Greece.....				
Athens.....	Nov. 1-Dec. 31.....	18	1	
Do.....	Jan. 1-Mar. 31.....	87	6	
Kalamata.....	Mar. 1-7.....	1		From Patras.
Saloniki.....	Feb. 10-Mar. 15.....		2	
Gadeloupe (West Indies)				Apr. 23, 1926: Present. Alastrim.
India.....				Oct. 18-Dec. 26, 1925: Cases, 19,472; deaths, 4,440. Dec. 27, 1925-Feb. 6, 1926: Cases, 36,335; deaths, 11,491.
Bombay.....	Nov. 8-Dec. 26.....	26	20	
Do.....	Dec. 27-Mar. 27.....	260	135	
Calcutta.....	Nov. 8-Dec. 26.....	48	25	
Do.....	Dec. 27-Apr. 3.....	620	397	
Karachi.....	Nov. 1-21.....	23		
Do.....	Nov. 29-Dec. 5.....	4	2	
Do.....	Dec. 13-19.....	3		
Do.....	Dec. 29-Apr. 3.....	102	32	
Madras.....	Nov. 15-Dec. 26.....	17	5	
Do.....	Dec. 27-Apr. 10.....	135	24	
Rangoon.....	Oct. 25-Dec. 28.....	7	1	
Do.....	Dec. 27-Jan. 16.....	13	1	
Do.....	Jan. 24-Mar. 6.....	70	17	
Do.....	Mar. 21-Apr. 3.....	20	7	
Indo-China.....				September-November, 1925: Cases, 340; deaths, 86.
Province—				
Annam.....	Sept. 1-Dec. 31.....	232	44	
Cambodia.....	do.....	84	34	
Cochin China.....	do.....	106	51	
Saigon.....	Dec. 21-27.....	2	1	
Do.....	Jan. 1-Mar. 21.....	12	2	Including 100 kilometers of surrounding country.
Tonkin.....	Sept. 1-Dec. 31.....	153	2	
Iraq:				
Bagdad.....	Nov. 1-Dec. 26.....	10	15	Sept. 6-Oct. 17, 1925: Cases, 81; deaths, 40.
Do.....	Dec. 27-Mar. 13.....	20	11	
Basra.....	do.....	52	42	
Italy.....				Aug. 2, 1925-Jan. 2, 1926: Cases, 52. Jan. 3-16, 1926: Cases, 12.
Cuttania.....	Feb. 15-28.....	1	1	
Genoa.....	Jan. 21-Feb. 10.....	4		
Rome.....	Oct. 12-25.....	1		
Do.....	Feb. 22-28.....	1		Occurring in consular district.
Jamaica.....				Nov. 29-Dec. 26, 1925: Cases, 95. Dec. 27, 1925-Apr. 21, 1926: Cases, 500. Reported as alastrim.
Kingston.....	Nov. 29-Dec. 26.....	43		Reported as alastrim.
Do.....	Dec. 27-Jan. 30.....	48		Do.
Do.....	Feb. 23-Apr. 24.....	36		Do.
Japan:				
Kobe.....	Mar. 14-Apr. 17.....	3		
Nagasaki.....	Feb. 15-21.....	1		
Taiwan.....	Nov. 11-Dec. 10.....	3		
Do.....	Mar. 21-31.....	3		
Yokohama.....	Dec. 14-20.....	1		Formosa.
Do.....	Feb. 23-Apr. 10.....	67	11	
Java:				
Batavia.....	Oct. 24-Dec. 25.....	8		
Do.....	Feb. 20-Mar. 5.....	5		
Buitenzorg.....	Nov. 29-Dec. 5.....	1		
Cheribon.....	Nov. 8-Dec. 12.....	2		
Do.....	Jan. 31-Feb. 6.....		1	







# **CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued**

**Reports Received from December 26, 1925, to May 21, 1926—Continued**

## **SMALLPOX—Continued**

Place	Date	Cases	Deaths	Remarks
<b>Java—Continued.</b>				
Kraksaan	Oct. 11-17	11		
Malang	Oct. 11-Dec. 26	2		
Do.	Dec. 27-Jan. 16	3	2	
North Bantam	Oct. 4-17	4		
Pekalongan	Oct. 25-31	1		
Pontianak	Jan. 31-Feb. 6		1	
Probolinggo	Oct. 11-17	1		
Serang	Feb. 14-27	5		
South Bantam	Feb. 23-Mar. 27	1		
Surabaya	Oct. 11-Dec. 26	633	104	
Do.	Dec. 27-Mar. 13	135	41	
Tegal	Oct. 4-10	9	1	
Latvia				December, 1925: Cases, 3.
Malla	Nov. 1-Dec. 21	21	3	
Do.	Jan. 1-Feb. 28	20		
Mexico				July-September, 1925: Deaths, 1, 157.
Aguaascalientes	Dec. 13-Jan. 2	4	3	
Do.	Jan. 3-30		7	
Do.	Feb. 14-Apr. 24		2	
Durango	Dec. 1-31		1	
Do.	Jan. 1-31		2	
Guadalajara	Dec. 27-Apr. 26		21	
Mexico City	Nov. 28-Dec. 5	1		Including municipalities in Federal District.
Do.	Jan. 3-Apr. 17	10		Do.
Saltillo	Apr. 4-10	1		
San Luis Potosi	Jan. 17-Mar. 20		53	
Do.	Mar. 28-May 1	15	22	
Tampico	Dec. 21-Jan. 2	1	1	
Do.	Jan. 2-Mar. 10	8		
Torreón	Nov. 1-Dec. 31		51	
Do.	Jan. 1-Mar. 31		65	
Vera Cruz	Mar. 29-Apr. 4	5	1	
Netherlands:				
The Hague	Jan. 30-Mar. 6	2	1	
Nigeria				August-November, 1925: Cases, 347; deaths, 6.
Palestine:				
Hebron	Jan. 26-Feb. 1	2		
Tiberias	Feb. 9-15	1		
Persia:				
Teheran	July 23-Dec. 22		775	
Do.	Dec. 23-Feb. 19		99	
Peru:				
Arequipa	Oct. 1-Dec. 31		2	
Poland				Nov. 1-28, 1925: Cases, 9. Jan. 1-16, 1926: Cases, 4.
Portugal				Mar. 1-28, 1926: Deaths, 6.
Lisbon	Oct. 4-31	124		
Do.	Nov. 16-Dec. 27		60	
Do.	Nov. 14-Dec. 26	187		
Do.	Dec. 27-Apr. 17	126	28	
Oporto	Nov. 22-Dec. 19	2	3	
Do.	Dec. 27-Mar. 6	3	1	
Rumania	August-October	8		
Russia				May-June, 1925: Cases, 2,333.
Do.	July-October	1,563		
Siam				July 12-Sept. 5, 1925: Cases 21; deaths, 6.
Bangkok	Dec. 29-25	3		
Do.	Dec. 26-Mar. 6	81	37	
Do.	Mar. 14-27	14	12	
Sierra Leone:				
Konno district	Dec. 10-31	5		
Spain:				
Madrid	Year 1925		18	
Do.	Jan. 1-31		1	
Malaga	Nov. 29-Dec. 5		2	
Do.	Dec. 27-Jan. 2		1	
Valencia	Dec. 20-26	1		
Do.	Dec. 27-Jan. 2		1	
Do.	Jan. 10-Feb. 6		9	
Do.	Feb. 14-Apr. 24	12		

# CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued

Reports Received from December 26, 1925, to May 21, 1926—Continued

## SMALLPOX—Continued

Place	Date	Cases	Deaths	Remarks
Straits Settlements:				
Penang.....	Mar. 28-Apr. 3.....	1	1	
Singapore.....	Dec. 20-26.....	7	1	
Do.....	Jan. 10-16.....	7	1	
Do.....	Feb. 7-27.....			
Sumatra.....	Feb. 14-27.....	2		
Switzerland.....	Oct. 1-Nov. 30.....	8		June 28-Nov. 21, 1925: Cases 62;
Lucerne.....	Jan. 1-31.....	5		Dec. 27, 1925-Jan. 30, 1926:
Do.....	Dec. 27-Jan. 2.....	1		Cases, 37.
Trinidad (West Indies):				
Port of Spain.....	Jan. 1-Apr. 3.....	12		
Tunisia:				
Tunis.....	Nov. 21-30.....	2		
Do.....	Dec. 11-31.....	10	1	
Do.....	Jan. 1-Apr. 20.....	7		
Union of South Africa:				
Cape Province.....	Jan. 17-23.....			Outbreaks.
Orange Free State—				
Kuruman district.....	Jan. 10-16.....			Do.
Ladybrand district.....	Dec. 27-Jan. 2.....			Do.
Transvaal—				
Belfast district.....	do.....			Do.
Germiston district.....	Jan. 2-9.....			Do.
Pretoria district.....	Dec. 6-12.....			Outbreaks. In native com-
On vessel.....	Feb. 21.....	2		pound. Mexican steamer Montezuma, at Port of Ensenada, Mexico.

## TYPHUS FEVER

Algeria:				
Algiers.....	Nov. 1-Dec. 20.....	2		
Do.....	Jan. 1-Apr. 10.....	13		
Argentina:				
Rosario.....	Oct. 13-Dec. 31.....	2		
Bulgaria.....	Sept. 1-Dec. 31.....	50	3	
Sofia.....	Dec. 25-31.....	1		
Do.....	Jan. 8-14.....	2		
Canary Islands:				
Santa Cruz de Tenerife.....	Mar. 8-14.....	1		
Chile:				Dec. 15-31, 1925: Cases, 46. Jan.
Achoa.....	Dec. 15-31.....	1		1-15, 1926: Cases, 23.
Do.....	Jan. 1-15.....	1		
Ancud.....	do.....	2		
Antofagasta.....	Apr. 11-17.....	1		
Bulnes.....	Dec. 15-31.....	1		
Chillan.....	do.....	24		
Concepcion.....	do.....	6		
Linares.....	do.....	1		
Los Angeles.....	do.....	5		
Penco.....	do.....	2		
Salamanca.....	do.....	17		
San Carlos.....	do.....	1		
Talen.....	do.....	1		
Valparaiso.....	Nov. 20-Jan. 2.....	5	2	
Do.....	Jan. 3-Mar. 27.....	4		
China:				
Antung.....	Nov. 20-Dec. 27.....	5	1	
Do.....	Jan. 4-Apr. 11.....	15		
Hongkong.....	Dec. 27-Jan. 2.....	1		
Manchuria—				
Harbin.....	Dec. 17-Feb. 4.....	3		
Do.....	Apr. 2-8.....	1		
Shanghai.....	Mar. 14-20.....	1		
Czechoslovakia.....	October-December.....	146	1	
Egypt:				
Alexandria.....	Jan. 8-Feb. 25.....	2		
Cairo.....	Nov. 5-Dec. 16.....	3	2	
Port Said.....	Nov. 19-25.....	1		
Do.....	Mar. 12-18.....	1		

# CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued

Reports Received from December 26, 1925, to May 21, 1926—Continued

## TYPHUS FEVER—Continued

Place	Date	Cases	Deaths	Remarks
Estonia.....	Jan. 1-31.....	6	—	
Finland.....		—	—	October, 1925: 1 case.
France.....	July-October.....	4	—	
Greece.....		—	—	December, 1925: Cases, 12.
Athens.....	Nov. 1-30.....	11	2	
Do.....	Jan. 1-Mar. 31.....	45	9	
Saloniki.....	Dec. 29-Jan. 4.....	1	—	
Do.....	Feb. 2-Mar. 22.....	2	—	
Hungary.....		—	—	November-December, 1925: Cases, 16.
Ireland:				
Cork County—				
Cork.....	Dec. 26-Jan. 1.....	2	—	
Do.....	Jan. 2-8.....	5	—	
Dumanway.....	Nov. 14.....	1	—	
Galway County.....	Oct. 17.....	1	—	
Kerry County—				
Listowel.....	Mar. 7-13.....	1	—	Rural district.
Wexford County—				
Gorey.....	do.....	1	—	Do.
Latvia.....	October-December.....	12	—	
Riga.....	Oct. 1-31.....	2	—	
Lithuania.....		—	—	September-October, 1925: Cases, 9; deaths, 1.
Mexico.....				July-September, 1925: Deaths, 90.
Agascalientes.....	Dec. 14-19.....	1	—	
Durango.....	Dec. 1-31.....	—	1	
Do.....	Jan. 1-31.....	—	1	
Guadalajara.....	Dec. 8-23.....	—	2	
Do.....	Dec. 29-Jan. 4.....	—	1	
Mexico City.....	Nov. 22-Dec. 26.....	50	—	Including municipalities in Fed- eral District.
Do.....	Dec. 27-Mar. 20.....	89	—	Do.
Do.....	Mar. 28-Apr. 10.....	11	—	Do.
San Luis Potosi.....	Feb. 6-13.....	—	1	
Tampico.....	Dec. 21-Jan. 10.....	1	—	
Torreón.....	November, 1925.....	—	1	
Vera Cruz.....	Feb. 12.....	—	1	
Morocco.....	August-December.....	93	—	
Norway.....		—	—	November-December, 1925: Cases, 2.
Palestine:				
Ekron.....	Mar. 30-Apr. 5.....	1	—	
Gaza.....	Dec. 18.....	1	—	
Haifa.....	Mar. 16-22.....	1	—	
Jaffa.....	Dec. 1-7.....	1	—	
Do.....	Feb. 23-Mar. 1.....	1	—	
Nazareth.....	Nov. 3-9.....	1	—	
Ramleh.....	Mar. 16-22.....	1	—	
Safad.....	Nov. 24-30.....	1	—	
Tel-Aviv.....	do.....	1	—	
Do.....	Mar. 9-15.....	1	—	
Tiberias.....	do.....	2	—	
Peru:				
Arequipa.....	October-December.....	—	3	
Do.....	Feb. 1-Mar. 31.....	—	2	
Poland.....	Oct. 11-Jan. 2.....	462	44	
Do.....	Jan. 3-Feb. 6.....	373	32	
Rumania.....		—	—	July-October, 1925: Cases, 181; deaths, 22.
Constantza.....	Feb. 1-Mar. 10.....	2	—	
Russia.....		—	—	May-June, 1925: Cases, 10,680.
Do.....		—	—	July-October, 1925: Cases, 1,605.
Tunisia:				
Tunis.....	Mar. 21-31.....	3	—	
Turkey:				
Constantinople.....	Jan. 24-30.....	3	—	
Do.....	Feb. 9-22.....	5	3	From unofficial sources (press).

# **CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued**

**Reports Received from December 26, 1925, to May 21, 1926—Continued**

## **TYPHUS FEVER—Continued**

Place	Date	Cases	Deaths	Remarks
Union of South Africa.....				October, 1925: Cases, 83; deaths, 7 (colored). Cases, European, 7. December, 1925: Cases, 78; deaths, 9. Colored: Cases, 73; deaths, 9. January-February, 1926: Cases, 163; deaths, 28. Colored.
Cape Province.....	Oct. 1-31.....	63	5	
Do.....	Nov. 8-Dec. 31....	47	8	
Do.....	Jan. 1-Feb. 28....	126	20	Do.
Grahamstown.....	Jan. 24-30.....	2		
Middelburg district.....	Dec. 6-12.....	1		European. On farm.
Natal.....	Oct. 1-Dec. 5.....	1		
Do.....	Jan. 1-Feb. 28....	11	1	Colored.
Durban.....	Jan. 3-Mar. 6.....	4		
Orange Free State.....	Nov. 29-Dec. 5....	23	1	
Do.....	Dec. 1-31.....	8	1	
Do.....	Jan. 1-Feb. 28....	8	3	Do.
Bethulia district.....	Dec. 6-12.....			Outbreaks.
Bothaville district.....	do.....	1		Native. On farm.
Transvaal.....	Oct. 1-31.....	1	1	
Do.....	Dec. 1-31.....	18		
Do.....	Feb. 1-28.....	8	4	
Johannesburg district.....	Mar. 1-20.....	3		
Bloemhof district.....	Dec. 27-Jan. 2....			Outbreak. On farm.
Yugoslavia.....				Jan. 1-Feb. 21, 1926: Cases, 81; deaths, 12.

## **YELLOW FEVER**

Gold Coast.....	Sept. 1-Dec. 31....	4	3	
Nigeria.....	August-October....	3	2	
Senegal.....	November, 1925....	3	2	



TREASURY DEPARTMENT

# PUBLIC HEALTH REPORTS

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## SPECIAL ARTICLES

Studies on the Streptococcus of Epidemic Encephalitis

Current Court Decisions Relating to the Public Health



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# UNITED STATES PUBLIC HEALTH SERVICE

HUGH S. CUMMING, *Surgeon General*

## DIVISION OF SANITARY REPORTS AND STATISTICS

Asst. Surg. Gen. B. J. LLOYD, *Chief of Division*

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They contain: (1) Current information of the prevalence and geographic distribution of preventable diseases in the United States in so far as data are obtainable, and of cholera, plague, smallpox, typhus fever, yellow fever, and other communicable diseases throughout the world. (2) Articles relating to the cause, prevention, or control of disease. (3) Other pertinent information regarding sanitation and the conservation of the public health.

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# PUBLIC HEALTH REPORTS

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## STUDIES ON THE ETIOLOGY OF EPIDEMIC ENCEPHALITIS. I. THE STREPTOCOCCUS

By ALICE C. EVANS, Associate Bacteriologist, Hygienic Laboratory, United States Public Health Service and WALTER FREEMAN, M. D., Senior Medical Officer, Director of Laboratories, St. Elizabeths Hospital, Washington, D. C., Professor of Neuropathology, George Washington University Medical School

Epidemic encephalitis is a newly recognized disease which is demanding increasing attention. It made its appearance in Vienna, Austria, during the winter of 1916-17, and from there spread to other countries. The first cases to be recognized in the United States occurred in the winter of 1918-19. Since then, the number of cases has steadily increased, and in the year 1924, 969 cases were reported in 40 cities of this country representing a population of about 22,500,000. The mortality was 50 per cent. Among those who survive the acute attack, many are later afflicted by motor disorders characterized by rigidity and tremor, or by spasmodic movements and often by salivation and other disturbances of the vegetative nervous system, and many develop changes of personality or other abnormal psychic traits which bring them to hospitals for the insane. During the summer of 1925, three patients suffering from chronic encephalitis died at St. Elizabeths Hospital, the Government hospital for the insane at Washington, D. C., and this report is on a bacteriologic study of material from these cases.

A brief survey of the various opinions in regard to the etiologic agent of epidemic encephalitis is of interest. Some of the early symptoms of encephalitis are similar to early symptoms of botulinus poisoning; hence, both in Austria and in England the disease was first mistakenly attributed to food intoxications. There has been much discussion of the relationship of epidemic encephalitis to epidemic influenza. There is a prevalent idea that encephalitis may be a sequel attending influenza, the pandemic having prepared the way by reducing resistance to the causative agent of encephalitis. On the other hand, there are those who believe that the influenza bacillus is itself responsible for encephalitis. Crofton has recently submitted evidence to support that hypothesis.

One of the earliest bacteriologic investigators of the disease was Vorr Wiesner who carried out his studies in Vienna in 1917. He

inoculated a monkey subdurally with an emulsion of brain from a fatal case of encephalitis lethargica. The animal sickened and died in 46 hours. At necropsy a meningo-encephalitis was found, and from the lesions a diplostreptococcus was cultivated which reproduced the disease in a second monkey and was highly virulent for a rabbit, causing death of the rabbit in 20 hours. Rosenow has also cultivated from a large number of cases of encephalitis a streptococcus which shows peculiar neurotropic properties and produces nervous symptoms in the rabbit, monkey, mouse, and guinea pig. Rosenow obtained his organism constantly from infected tonsils, teeth, or nasopharynx of patients during life and from the brain after death. Minute forms of the organism occurred, which passed through filters that held back *Serratia marcescens* (*Bacillus prodigiosus*).

The streptococcus to be described in this paper agrees with that of Von Wiesner and with that of Rosenow in so far as the comparisons have been made.

Two groups of Italian workers also have cultivated, from cases of epidemic encephalitis, diplococci which appear to be the same as the one here described. Maggiora, Mantovani, and Tombolato obtained a diplococcus from the blood in three severe cases. It produced nervous symptoms when inoculated into guinea pigs, and could be transmitted from animal to animal. A few months later Ottolenghi, d'Antona, and Tonietti obtained a diplo-streptococcus from one of six cases of lethargic encephalitis. They identified their strain with the pleomorphic streptococcus of Von Wiesner, and with the diplococcus of Maggiora, Mantovani, and Tombolato.

Other investigators have cultivated streptococci from cases of encephalitis. Probably some of these investigators, possibly most of them, have cultivated the same organism as the one here described; but their descriptions are not sufficiently complete, or else a discrepancy occurs in their descriptions when applied to our organism, so that identification can not be made with certainty.

Reichert cultivated a pleomorphic streptococcus from the brain at necropsy in all of eight cases of epidemic encephalitis and he obtained the same organism from the heart blood in four cases. He is convinced of the identity of his organism with that of Von Wiesner, and his descriptions, in so far as they go, appear to justify that conclusion. But Reichert made no tests of the pathogenicity of his organism.

Stafford cultivated diplococci from the spinal fluid taken from two cases, and Cohn and Lauber cultivated a diplococcus from the blood of one case of encephalitis. The diplococci described by these investigators agree in general with the organism described in this paper. Animal experiments gave negative results. These investigators did not, however, make intracerebral inoculations, and their

negative results with inoculations made by other routes are not necessarily at variance with our results.

Brasher, Caldwell, and Coombe observed a Gram positive diplococcus in the cerebrospinal fluid from two cases of encephalitis. They were unable to obtain cultures.

Bradford, Bashford, and Wilson report the cultivation of a pleomorphic coccus from cerebrospinal tissue in cases of "acute infective polyneuritis." They claim to have reproduced the disease in monkeys by subdural inoculation of cultures. None of their cultures, however, could be carried beyond the fifth generation. The statement that their organism will not grow aerobically is contrary to the behavior of our cultures.

Loewe and Strauss carried out extensive experiments with a filterable organism obtained from brain, from nasopharyngeal mucous membrane, and from nasal washings from cases of epidemic encephalitis. They cultivated a streptococcuslike organism in tissue ascitic fluid medium, and were able to transmit the disease to monkeys and rabbits. Positive animal inoculations were obtained with the eleventh generation of this organism. Their results were later duplicated by Thalheimer. The statement of these investigators that their cultures would not grow on ordinary media disagrees with our results.

Several investigators, including Levaditi and Harvier, McIntosh, Doerr, and Schnabel, and Perdrau, have worked with strains of encephalitis virus which are passed from animal to animal by inoculations with the brain emulsions, or with filtrates of brain emulsions, without cultivation of the organism between passages. The confusion of the whole subject is shown by the fact that the disease caused in rabbits by these encephalitis viruses can not be distinguished from the disease caused by the virus obtained from cases of herpes. This similarity in the diseases caused by the encephalitic and herpes viruses was first observed by Doerr and Schnabel and has been confirmed by a number of investigators.

It is impossible, at the present stage of our knowledge, to correlate the results of those investigators who consider the pleomorphic streptococcus as the etiologic agent in epidemic encephalitis, with the results of those who fail to cultivate an organism from the virus. Certain claims common to the two groups suggest, however, that both may be working with the same organism. Both groups of workers produce the symptoms of encephalitis in experimental animals, with brain lesions similar to those in the human disease; both groups of workers are able to immunize experimental animals against their respective viruses; both groups of workers have found the agent of encephalitis in the nasopharynx of normal persons. Some of those investigators who have cultivated a pleomorphic

coccus have found minute forms which will pass through a filter capable of holding back ordinary bacteria.

There is an erroneous idea prevalent in regard to "filterable viruses" which may account for the failure of some investigators to cultivate the streptococcus of epidemic encephalitis—namely, the idea that bacteria of ordinary size can not occur in filterable forms, and, vice versa, that if an organism is filterable it can not also occur in forms comparable in size with ordinary bacteria. Consequently, when an investigator of a filterable virus finds ordinary sized bacteria in his medium, he is likely to discard it as "contaminated" without further consideration.

#### TECHNIQUE

The media used in these investigations are very simple. Anaerobic cultures are grown in a meat medium prepared like ordinary beef infusion broth; but instead of discarding the meat from which the broth is made, the ground meat particles are placed in the tubes to a depth of about 1 inch. After the medium has been inoculated, a cap of sterile melted vaseline is added.

Vitamin agar is prepared according to the ordinary method for plain infusion agar; but instead of filtering, the sediment is allowed to settle, and after the agar is hardened it is cut away. The agar thus made is a clear medium favorable for the growth of delicate organisms.

Plantings of tissue in meat medium were made with pieces about the size of a pea, or, in the case of blood, a few drops were planted. The meat medium alone was used for planting the human tissues. Those from the experimental animals were planted also on a series of three or four vitamin agar slopes. The first tube was smeared with the tissue, then without flaming the loop, the remaining tubes were planted in succession. If growth occurred, it could be recorded as sparse, moderate, or heavy, according to the number of colonies in the various tubes.

Intracerebral inoculations of rabbits were made with the broth from the meat medium cultures or with emulsions of brain. The brain was ground in a mortar and physiologic salt solution added to make an emulsion of approximately 10 per cent. The emulsion was then strained through gauze or filtered through a Mandler filter. The inoculum for rabbits was always 0.25 cubic centimeter. The rabbit was anesthetized with ether, and a cut about a half-inch long was made in the skin at the top of the head a little to the right of the median line. The skin was then drawn to the left, and the skull was trephined through the cut a little to the left of the median line. Inoculations were made into the brain tissue. Monkeys were inoculated intracerebrally in the same manner as the rabbits. The

amount of inoculum for the monkeys varied, however, and will be given in the protocols.

In the filtration experiments the efficiency of the filter was always tested by heavily inoculating the material with *Serratia marcescens* (*Bacillus prodigiosus*) from a young agar slope culture before placing it in the filter.

#### BACTERIOLOGIC INVESTIGATION

Two of the cases investigated gave negative results. From the third the cultures were obtained on which this paper is based.

The first case to come under this bacteriologic investigation (designated Case 2 in the report of cases)<sup>1</sup> died suddenly on June 4, 1925, nearly six years after the acute attack of the disease. Necropsy was performed 69 hours after death. Pieces removed from the spinal cord and from various parts of the brain were obviously contaminated, except that from the cerebral cortex, from which several strains of cocci were obtained. After preservation in glycerin for two days an emulsion of the mesencephalon was prepared, and intracerebral inoculations were made into one monkey and three rabbits. The monkey never showed definite nervous symptoms, but died of pneumonia about a month after inoculation. The rabbits all developed nervous symptoms and died or were chloroformed on the second, fifth, and ninth days, respectively, after inoculation. Seventeen more rabbits were inoculated intracerebrally with emulsions of the human mesencephalon or with cultures obtained from the human brain or from the brains of the rabbits which had shown nervous symptoms, or with emulsions of the brains of these rabbits. The results of these inoculations were negative except in one rabbit which was inoculated with culture and died on the fifth day after showing nervous symptoms. Further inoculations with this strain gave negative results.

The second case to be studied bacteriologically (designated Case 3 in the report of cases) died on July 19, 1925, more than four years after the onset of illness. Necropsy was performed 15 hours after death. Plantings were made in the meat medium at once, and the following day an emulsion was prepared with the mesencephalon which had been preserved in glycerin. Two monkeys and six rabbits were inoculated intracerebrally with the emulsion, and six rabbits were inoculated with cultures obtained from this human brain, with uniformly negative results.

The third case to be studied bacteriologically (designated Case 4 in the report of cases) died on August 15, 1925. The patient had suffered from two previous attacks of acute encephalitis, one in 1919 and one in 1923. The third attack began in July, 1925, and was characterized by high fever, which terminated fatally, with a tem-

<sup>1</sup> Detailed report of these cases will appear elsewhere.

perature of 107° F. Necropsy was performed two hours after death. A pleomorphic organism, highly virulent for rabbits and monkeys when inoculations are intracerebral, was cultivated from the mesencephalon and from the heart blood taken at necropsy, and it was also obtained from nasal washings taken a few days before death.

The remarkable pleomorphism of the organism suggests life cycles as complex as those of some of the higher fungi. It may be stated briefly that in one of the phases of its life history this organism is a spore-forming rod. The rod form produces not only spores, but also exceedingly minute, filterable, coccoid bodies which develop as buds on the outer walls of the rods. Under certain conditions these minute coccoid bodies enlarge and multiply as cocci. The detailed study of the rod form and other phases in the life history of the organism will be given in forthcoming publications. This report will be limited to observations on the streptococcus form of the organism—the form in which the virulence is highest and most stable.

The three strains of streptococcus obtained from Case 4 were designated P-95, P-104 and P-107. Strain P-95 was obtained from the nasal washings taken eight days before death. Two rabbits inoculated intracerebrally with the washings showed nervous symptoms and died or were chloroformed on the second and third days. Strain P-95 was obtained from the brain of one of these rabbits. It grew readily on the vitamin agar as well as in the meat medium.

Strain P-104 was obtained from the human heart blood taken at necropsy. Four tubes of meat medium were each planted with several drops of blood. Two days later they were examined, and all showed clouding, with gas. Stained smears showed a variety of forms. The subsequent demonstration of pleomorphic forms of the organism raises the question as to what extent these original cultures were contaminated. Two rabbits were inoculated intracerebrally with different cultures. One of these rabbits never showed any symptoms. The other rabbit showed nervous symptoms on the day following inoculation, and died on the second day. Cultures planted with the rabbit's brain showed pure growth of strain P-104, which proved to be identical with strain P-95. In the first and second culture generations of strain P-104 from the rabbit's brain, growth occurred on vitamin agar only when the inoculations were very heavy. In all subsequent plantings, growth has taken place readily on the vitamin agar, even in the first generation after animal passage.

Strain P-107 was obtained from the human mesencephalon taken at necropsy. Six tubes of meat medium were planted with pieces of mesencephalon, and all showed clouding two days later, when first examined. Three of the six cultures were inoculated intracerebrally into rabbits, and all were found to be virulent. The culture from



which strain P-107 was derived was incubated for two days, placed in the ice box for a week, then, after five days more of incubation, it was inoculated intracerebrally into a rabbit. On the following morning the rabbit was found dead. (Death had occurred in less than 18 hours.) Meat medium and vitamin agar planted with the brain showed pure growth of P-107.

Plantings in meat medium were made also from the cortex and medulla of Case 4. Of 18 tubes planted with cortex, 2 showed growth. Both of these cultures proved to be avirulent when inoculated intracerebrally into rabbits. Of 5 tubes planted with medulla, 4 showed growth. Two of the cultures obtained from the medulla were inoculated intracerebrally into rabbits and were found to be avirulent.

The negative results obtained with cultures from the cortex and medulla are in striking contrast with the positive results obtained with cultures from the mesencephalon. These findings indicate that the virulent organism was localized in the mesencephalon, which is known to be the seat of the most marked pathologic alterations. There is evidence, however, that it was only sparsely seeded in the mesencephalon. After the brain had been preserved in glycerin for three days, pieces of the medulla and mesencephalon were emulsified together and the emulsion was inoculated intracerebrally into three rabbits. One rabbit was found dead three and one-half hours later. The cause of death was not determined. The two remaining rabbits never showed any symptoms. It will be shown further on that rabbits withstand light inoculations of the organism without showing symptoms.

#### DESCRIPTION OF THE STREPTOCOCCUS

When heavily seeded on vitamin agar the streptococcus grows in a delicate film of minute colonies scarcely visible to the naked eye. When the colonies are well isolated they may attain the size of an ordinary streptococcus colony. On blood agar there is a small zone of slight hemolysis with a greenish tinge. The organism will grow on plain agar and in plain broth. Litmus milk is curdled in two days. Broth cultures with an initial pH value of 7.3 are reduced to about pH 6.6 with lactose present, and to about pH 4.8 with dextrose, maltose, or saccharose present. Salicin, raffinose, mannite, and inulin are not fermented.

In its morphology this streptococcus displays some peculiar characteristics. In meat medium culture, and, more markedly, in the condensation water of an agar slope that has been smeared with tissue, the diplococci grow in long parallel chains forming ribbons of two, three, or more filaments. (Fig. 1.) The chains of a ribbon have a tendency to separate and bulge here and there, making rings which may be more or less angular; and single chains may be com-

monly found with one end curled around to form a closed loop. Occasionally very large, deeply stained forms may be found in a chain of ordinary coccus forms. These large forms within the chains usually occur in pairs. (Fig. 2.)

On blood agar slope the streptococcus grows not only as a diplococcus, but also in masses made up of minute deeply stained bodies surrounded by a lightly stained substance. The appearance is that of a plasmodium dotted with myriads of minute nuclei.

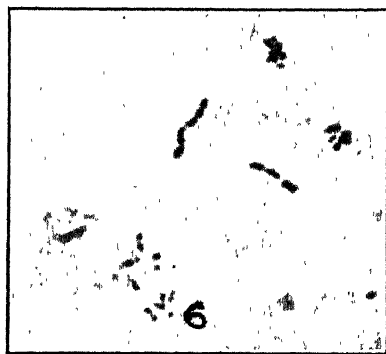
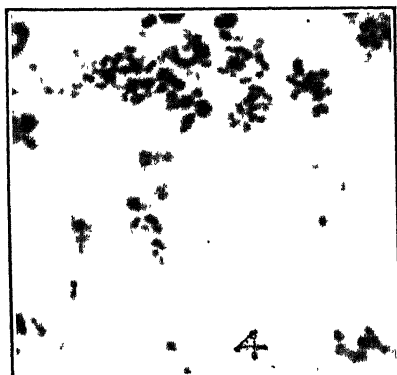
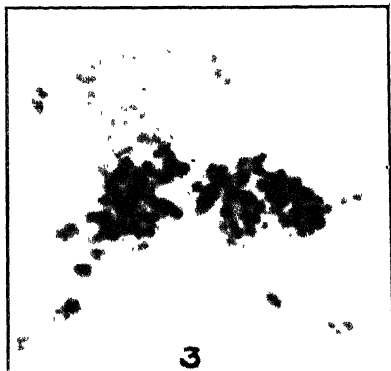
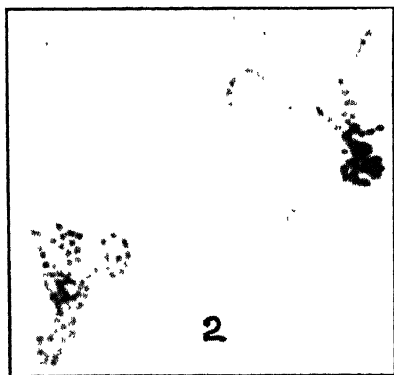
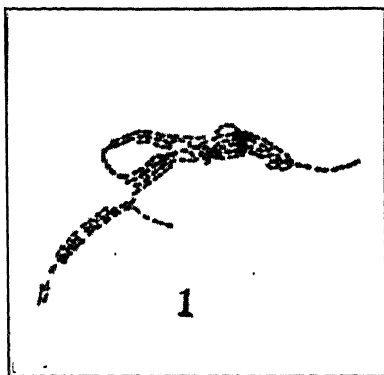
Cultures on agar slopes that have been smeared with the organs of a rabbit which has died following intracerebral inoculation after having been partially protected by previous intravenous inoculations (the protection experiments will be discussed further on) show a great variety of pleomorphic forms. Diphtheroids and giant cocci are common (fig. 3); and deeply stained bodies of irregular size and shape may be found embedded in lightly stained material of indefinite form (fig. 4).

In smears of the brain of a rabbit which has succumbed to a rapidly fatal infection, cocci varying greatly in size may be found. (Fig. 5.) The largest cocci in Figure 5 are the size of ordinary cocci. It is obvious that if an emulsion of a brain containing these minute cocci were passed through a filter with pores just small enough to hold back bacteria of ordinary size, the smallest forms to be seen in the photograph would pass through the filter.

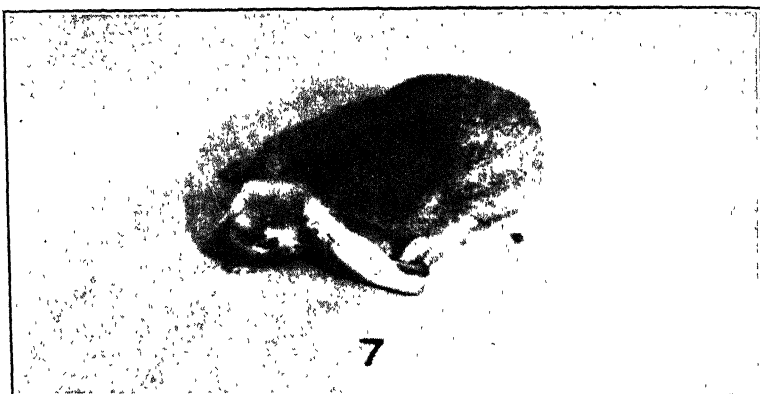
Figure 6 shows the streptococcus in a smear of the brain of a monkey which died of the infection.

In smears prepared from agar slopes or from meat medium the streptococcus is variable to Gram's stain. When grown in fluid culture it is peculiarly resistant to staining. When Gram-safranin is used it commonly happens that no organisms, or only a few, may be found in smears prepared from meat medium cultures that are heavily clouded. The abundance of cocci that would be expected in smears prepared from heavily clouded cultures can rarely be found when the smears are stained with Gram-safranin. Cultures that are completely resistant to the Gram-safranin may present an unusual picture when the smears are stained with Loeffler's methylene blue. Some of the cocci may be stained a deep blue, and others may be unstained, appearing as hyaline bodies against a pale blue background. Sometimes the hyaline bodies are irregularly distributed among the deeply stained cocci in a chain. The organisms are readily stained by Giemsa's method.

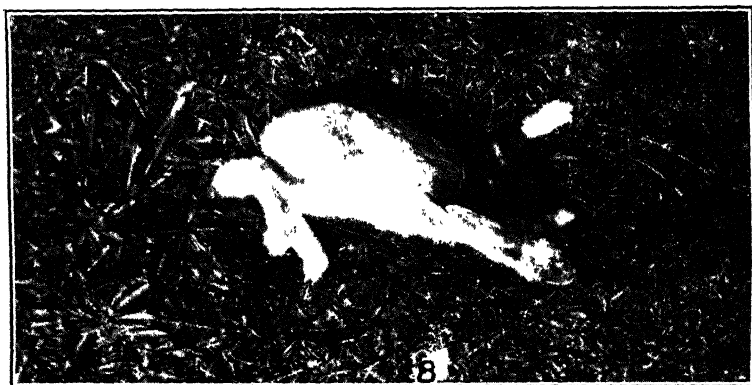
*Retention of virulence.*—In an infected rabbit's brain preserved in glycerin at about 4° C. the virulence of the streptococcus had decreased slightly on the nineteenth day, notably on the thirty-sixth day, and by the forth-eighth day there had been a complete loss of



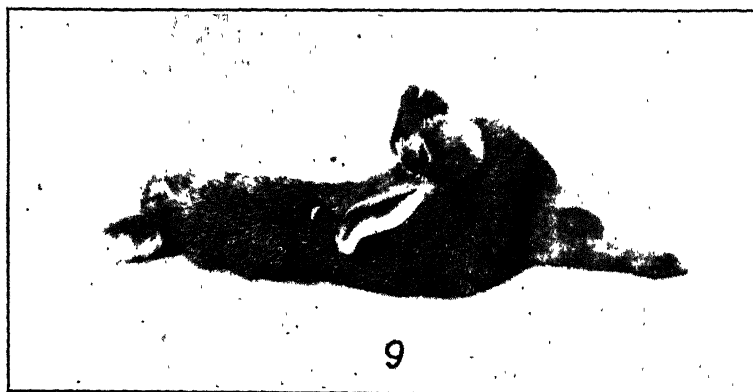
1. Streptococcus form of strain P-95. 24-hour culture in meat medium. Stained by Giemsa's method. (X 1,200, approx.)
2. Streptococcus form of strain P-104. 24-hour culture in meat medium planted with rabbit's brain. Stained with methylene blue. (X 2,900, approx.)
- 3 and 4. Pleomorphic forms of strain P-95. 48-hour culture on agar slope planted with liver of a rabbit which had been partially protected by several intravenous inoculations previous to the fatal dose given intracerebrally. Stained by Giemsa's method. (X 2,900, approx.)
5. Strain P-95 in smear of brain of rabbit. Stained with Gram-safranin. (X 2,900, approx.)
6. Strain P-95 in smear of brain of monkey 38. Stained with Gram-safranin. (X 2,000, approx.)



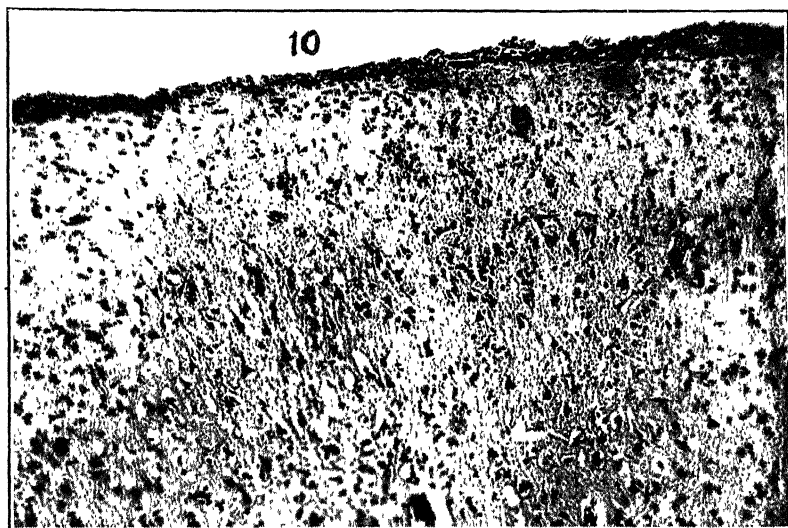
Rabbit 50 (see Table 2)



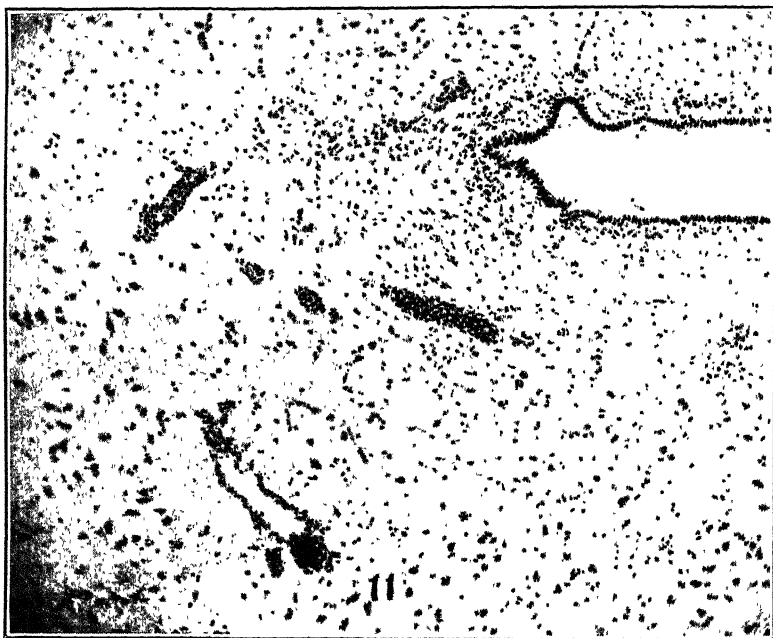
Rabbit 62, two days after intracerebral inoculation with the original culture planted with the patient's midbrain



Rabbit 46 (see Table 2)



Rabbit 196. Cerebral cortex, showing meningeal infiltration, reaction of neuroglia in the superficial layers of the cortex, and perivascular round-cell infiltration



Monkey 39. Mesencephalon. About the aqueduct there are several blood vessels the sheaths of which are packed by lymphocytes and a few leucocytes. There is pronounced reaction on the part of the neuroglia

virulence. Whether or not this decrease in virulence was due to a diminution of viable organisms was not determined.

Cultures in meat medium kept at about 4° C. have maintained their virulence for five months.

#### EXPERIMENTAL ENCEPHALITIS IN RABBITS

The streptococcus is highly virulent for rabbits when inoculated into the brain. Strain P-95 has been passed through a series of 18 rabbits. The first rabbit of the series was inoculated intracerebrally with nasal washings from the patient, and death occurred in 66 hours. All subsequent inoculations have been with cultures, and death has invariably occurred in less than 18 hours when the inoculations were intracerebral with undiluted fresh culture. The most rapidly fatal result was noted in the thirteenth passage, when death occurred in 5¾ hours.

Strain P-104 has been passed through a series of six rabbits. The first rabbit, inoculated intracerebrally with a culture planted with the human heart blood, died 43 hours after inoculation. In subsequent passages death has occurred in less than 23 hours when the inoculation was intracerebral with undiluted culture.

Strain P-107 has been passed through a series of 12 animals, all rabbits, except that the eighth passage was through a monkey. The first rabbit, inoculated with a culture planted with the human mesencephalon, died in less than 18 hours after inoculation. In all subsequent passages death occurred in less than 18 hours when inoculations were intracerebral with undiluted culture.

The rapidity of death in these rabbits suggests the possibility that a soluble toxin may be responsible for the quick action. That this is not the case was demonstrated on two occasions by inoculating rabbits with cultures that had passed through Mandler filters, as controls for rabbits inoculated at the same time with the same cultures unfiltered. The rabbits inoculated with filtered cultures showed no symptoms. On the other hand, the innumerable colonies which always appear on the series of agar slopes planted with the brains of rabbits which have died a few hours after inoculation leave no doubt that death is caused by the organisms. The rabbit which died in 5¾ hours was already going into a lethargic state by the time it had recovered from the effects of the ether. The lethargy increased until there was complete prostration, with continuous clonic movements of the limbs.

Usually, however, the disease manifests itself in a manner different from that described above. After the intracerebral inoculation of 0.25 cubic centimeter of culture the rabbit recovers from the effects of the ether in 15 or 20 minutes, and then he generally behaves like a normal rabbit for a few hours. The first evidence of the infection

is an increasingly rapid and labored respiration, with a rise in temperature. Then commonly there is a sudden loss of the use of the hind limbs. The rabbit appears alert and tense with excitement and anxiety; he starts now and then with a hurried movement, but does not progress rapidly on account of his dragging hind quarters, which are spastic rather than flaccid. Complete prostration follows, usually accompanied by convulsions, and death occurs a few hours later.

At necropsy the brain is found congested. Frequently the blood vessels in the subcutaneous tissue of the chest and abdomen are congested, and occasionally there is a hemorrhagic exudate. There are no other gross lesions. The urinary bladder is usually found distended.

When inoculations were made with a culture attenuated by glycerin, or with a diluted fresh culture, or when partial protection was secured by a series of intravenous inoculations, or, in some cases, in the first passage rabbit inoculated with culture planted with human material, the course of the disease was prolonged. In no case, however, has death occurred later than the tenth day. Those rabbits which survived that period made a complete and rapid recovery in their general physical condition, with slow recovery from nervous symptoms. The early symptoms most commonly observed when the disease was prolonged were labored breathing, with a purulent discharge from the nose, fever, tremors, incoordination and stiffness of the limbs. Later, a variety of symptoms were manifest, some of which resembled those that characterize epidemic encephalitis in man. Some rabbits held their heads rotated on the long axis toward the side of inoculation and following their heads in rotation they rolled over and over, kicking themselves along until they rolled against an obstruction or until progress was stopped by exhaustion. Figure 7 shows a rabbit with a rotated head, and Figure 8 shows a rabbit in a distorted position commonly observed. Some of the rabbits had strongly retracted necks. (See fig. 9.) Many turned round and round away from the side of inoculation, more rarely toward it. One rabbit, inoculated with the first generation of a culture planted with a piece of the human midbrain, was very sick and developed a strongly rotated head and great loss of weight. On recovery, many weeks after the inoculation, it showed reduced rotation of the head, but a tendency to remain in a certain position almost without moving for a considerable period. There was also observed in this animal an intermittent rhythmic tremor of the jaws, practically a counterpart of the tremor of the jaws frequently observed in patients. This rabbit slowly returned to almost normal, and was used again to determine whether the infection protected it against a subsequent inoculation. (See rabbit 61 in the discussion further on.)



Regardless of whether the inoculation was intracerebral or intravenous, if death occurred within three or four days the brain was always found to be very heavily seeded with the streptococcus, but the heart blood and lungs showed no growth or were sparsely seeded. Sometimes no growth developed in cultures planted with liver, but the liver was found to be sparsely or moderately seeded with the streptococcus more often than in the case of the heart blood or lungs, and occasionally the liver was found to be heavily seeded.

#### THE APPROXIMATE MINIMAL LETHAL DOSE

A series of experiments was carried out to determine the approximate minimal lethal dose by the intracerebral route. When the culture was diluted 1 to 1,000 or 1 to 10,000, death was delayed from a few hours to nine days. Three rabbits were inoculated with broth culture diluted 1 to 100,000, one with the third and two with the eighth passage culture. They showed no symptoms, although by planting 0.25 cubic centimeter of the diluted cultures it was shown that there were at least a few organisms in the inoculum. The fact that rabbits will withstand light inoculations of the organism without showing symptoms throws some light upon the results obtained in filtration experiments.

#### FILTRATION EXPERIMENTS

Filtrates of the emulsion of the human brain, of the emulsion of rabbit's brains, and filtrates of cultures have given uniformly negative results when inoculated intracerebrally into rabbits. By planting filtrates in meat medium, however, virulent cultures have been obtained, and they have shown that the organism is in a filterable form in the human brain, in the rabbit brain, and in cultures.

#### INTRAVENOUS, INTRAPERITONEAL, AND SUBCUTANEOUS INOCULATIONS

Although the virulence of the streptococcus is constant when inoculation is made into the brain, rabbits may withstand intravenous, subcutaneous, or intraperitoneal inoculations of 2 cubic centimeters of culture (approximately 80,000 minimal lethal doses) without showing symptoms. Occasionally, however, infection has followed intravenous inoculation. The protocols for experiments in which infection followed intravenous inoculation of strain P-95 are summarized in Table 1.

When death occurred in less than 48 hours after intravenous inoculation the liver was sometimes heavily seeded, whereas the heart blood and lungs were free from, or sparsely seeded with, the streptococcus. In the case of the two rabbits which died on the third day after intravenous inoculation the infecting agent had disappeared from the liver as well as from the heart blood and lungs.

On the other hand, the brain was heavily seeded with the infecting agent in every rabbit which died after intravenous inoculation. When symptoms were observed they were the same kind of nervous symptoms as follow intracerebral inoculation of the organism. In the majority of cases, however, death occurred suddenly without the observation of symptoms.

#### PROTECTION EXPERIMENTS

By subjecting rabbits to a course of three or four treatments of intraperitoneal or intravenous inoculations with living culture they become immunized so that they may withstand heavy intracerebral inoculation. The protocols for three such experiments are summarized in Table 2. In rabbit 46 the test dose was approximately 10,000 minimal lethal doses, and death was delayed until the sixth day. In rabbit 50 the test dose was 1,000 minimal lethal doses. The rabbit survived, after two or three days of very severe illness. By the eighth day it was again in good physical condition, but the nervous symptoms continued until death occurred, death being due apparently to some cause not related to the experiment. In rabbit 158 the test dose was 100 minimal lethal doses. Slight nervous symptoms were observed on the second day; they were less pronounced on the third day, and by the tenth day recovery was complete. A control rabbit which received the same intracerebral inoculation as rabbit 158 died in 21 hours.

Two more protection experiments are summarized in Table 3. In these experiments the immunizing treatment was with strain P-95 and the test dose was with strain P-104. The protection afforded by the treatment demonstrates the identity of the strain obtained from the nasal washings of the patient with the strain obtained from the heart blood at necropsy.

Although rabbits could be immunized with repeated intravenous inoculations, intracerebral inoculation of a sublethal dose gave no protection. On the other hand, it appeared to increase the susceptibility of the rabbit to subsequent inoculations. The failure of a sublethal intracerebral inoculation to protect was observed in several rabbits which had not shown nervous symptoms following the intracerebral inoculation. Increased susceptibility was apparent in some of these rabbits, but not in all of them. Lack of protection was demonstrated in two rabbits which suffered severe illness with marked nervous symptoms after intracerebral inoculation. The protocols for these rabbits are summarized in Table 4. Rabbits 61 and 67 were inoculated with different cultures, both of which were original cultures planted with the human midbrain. Rabbit 67 showed marked tremors and incoordination on the second day. Three days later it appeared better except for a rotation of the head. Three weeks after

inoculation the rabbit was in good physical condition, and the rotation of the head was reduced. Four weeks after inoculation the rabbit appeared healthy and normal in every way. Three weeks later it was inoculated intracerebrally with culture P-95. Death followed in five hours—more rapidly than it has ever occurred in rabbits which have not previously received a cerebral inoculation. A control rabbit inoculated at the same time died in seven hours.

Rabbit 61 showed nervous symptoms the day after inoculation. For several days there were marked tremors and incoordination, with a temperature of 41.8° C. Two weeks later an improvement in the general physical condition began, but there was increased rotation of the head until the left eye was turned upward, and there were other mild nervous symptoms. Finally, the nervous condition improved slowly. Then, when in good physical condition, with only a slight rotation of the head, six months after the first inoculation the rabbit was again inoculated intracerebrally with strain P-107, diluted 1 to 100. Death followed in 22 hours, whereas the control rabbit lived 43 hours.

In monkey 36 (see the protocol further on) there is possibly another instance of lack of protection by a previous cerebral infection. The symptoms after the first inoculation were so slight, however, that they were questionable. If these slight symptoms were caused by the introduction of virus into the brain, they were the only observed evidence of a virus from the brain of the human case No. 3.

Protection experiments should be carried out to determine whether the streptococcus described in this paper will immunize against the encephalitis viruses which other workers are carrying from animal to animal without the cultivation of an organism between the passages. If cross protection can be demonstrated, a step forward will have been gained. If cross protection can not be demonstrated, the question will not necessarily be settled. It can not be assumed that the protein in the streptococcus is identical with the protein in the minute forms which pass through a filter. This suggestion comes from the "organ specificity" found in higher forms of life.

#### HISTOPATHOLOGY OF EXPERIMENTAL ENCEPHALITIS IN RABBITS

Before detailing our results with rabbits it must be recalled that these animals are rather poor subjects for histologic studies on encephalitis because of their liability to spontaneous lesions of the brain. Seven of our eleven control rabbits, killed for other purposes while in apparent good health, showed foci of glia reaction and sometimes rather marked perivascular round-cell infiltration. This finding has been recorded by other investigators, although it is not universally found. The foci of "spontaneous" inflammation are likely to be localized, though in some cases the inflammation is wide-

spread. Occasionally it is seen in the mesencephalon. We can speak of positive results, therefore, only when the inflammatory manifestations in the brain surpass the maximum "spontaneous" inflammation seen in the control animals. The meninges are a more sensitive guide, for they seem not to be involved to any notable degree in the control rabbits.

Of the 16 rabbits studied histologically after inoculation of the streptococcus, all but 2 showed characteristic reactive phenomena in the meninges. These two had lived for about six weeks after intracerebral inoculation of the organism, both having shown symptoms of nervous disorder. One died of peritonitis and the other succumbed within seven hours to a secondary intracerebral inoculation. All the other animals showed meningeal reaction, even within as short a time as  $5\frac{1}{4}$  hours after intracerebral inoculation or 32 hours after intravenous inoculation. The reaction consisted in thickening of the meninges with edema, and infiltration of their meshes with lymphocytes and polynuclear leucocytes, among which eosinophiles were not infrequent. Often there was great congestion of the smaller vessels, and occasionally there was diapedesis of red blood cells into the interstices of the tissue. In no case was there frank suppuration, nor were any notable amounts of fibrin present. The most marked reaction was observed usually over the dorsum of the mesencephalon where the loose-lying cells were less apt to be displaced during technical procedures. There was less inflammation at the base.

Some inflammatory reaction within the parenchyma of the brain was observed in every case studied, but three of these cases had to be excluded from consideration on account of the slight character of the reaction, coming as it did within normal limits. It appeared within 12 hours after intracerebral inoculation, but was not found in animals that lived six weeks after inoculation even though these animals had shown characteristic nervous symptoms. Signs of old inflammation were to be seen in these animals, however, in an increased density of the cerebral cortex due to neuroglia overgrowth.

When well developed, this encephalitis in the rabbit presented unmistakable features. There was penetration along the sheaths of the vessels entering the cerebral substance from the meninges, of large numbers of lymphocytes, sometimes accompanied by polymorphonuclear leucocytes. There was reactive gliosis of marked proportions in the superficial layers of the cortex where many good examples of microglia cells were to be found. There was apparent condensation of the cortex, due to the large increase in the number of glia cells present, somewhat recalling the picture of dementia paralytica in the human brain. Some nerve cells had lost their chromatin material, others were shrunken and hyperchromatic. Many showed swollen outlines.

Satellitosis was frequent. The inflammation extended over the cerebral cortex in a diffuse manner, never localizing into abscesses. The most marked lesions were usually in the cerebral cortex (see fig. 10). In the deeper areas it was not rare to encounter vessels surrounded by thick collars of lymphocytes and polymorphonuclear leucocytes. In some cases the mesencephalon seemed to be particularly seriously invaded. The substantia nigra, which is the part of the human brain bearing the brunt of the attack, did not show any serious alterations, although in some instances there was an inflammatory reaction in the neighborhood. The cerebellum and medulla oblongata on the whole showed less marked inflammatory reaction, although there was considerable swelling and chromatolysis of the nerve cells.

The other organs investigated—heart, lung, liver, and kidney—showed no characteristic lesions after either intravenous or intracerebral inoculation. Congestion and albuminous degeneration were manifest, but no foci of inflammation. No instance of bronchopneumonia was encountered. Sometimes there appeared to be some increase in the number of round cells in the perilobular tissues in the liver, but this was also seen in control animals, even in the absence of coccidiosis. The muscles were not investigated histologically, but grossly they showed no specific alterations.

On the whole the reaction of the tissues in the central nervous system resembled the reaction in acute encephalitis in man to a pronounced degree. The election of the cortex in preference to the mesencephalon and the presence of numbers of leucocytes were the only outstanding differences.

#### EXPERIMENTAL ENCEPHALITIS IN MONKEYS

The pathogenicity of the streptococcus was tested on four monkeys. The complete records of the disease in these monkeys are presented below.

##### MONKEY 36

7-21-25: Inoculated intracerebrally with about 1 cubic centimeter of emulsion of the mid-brain of Case 3. Three days later he was observed to be sluggish and pale. Slight spasmodic movements resembling hiccoughs were observed. The next day he had recovered, and no further symptoms were observed.

9-28-25: Inoculated intraperitoneally with 2 cubic centimeters of culture P-95 (8)<sup>2</sup>. No symptoms followed.

10-14-25, 1. 30 p. m.: Inoculated intracerebrally with 0.5 cubic centimeter of culture P-95 (9). At 4 p. m. the monkey appeared normal.

10-15-25, 9 a. m.: The monkey was found dead. At autopsy a purulent discharge at the nose was observed. Heart blood, liver, lung, and brain were planted.

<sup>2</sup> The figure in parenthesis following the description of the inoculum designates the number of rabbits the strain had passed through previous to the inoculation of the monkey.

10-16-25: Cultures show that heart blood and lung were sparsely seeded, and liver and brain were heavily seeded with P-95.

Grossly the internal organs and the brain showed no lesions. Microscopically the heart showed swelling and granularity of the cytoplasm of the muscle fibers, with loss of cross striation. There were no infiltrations. The spleen and kidney appeared normal. Except for congestion the lungs were normal.

Over the cerebral cortex the meninges were congested and somewhat infiltrated by lymphocytes and endothelial cells, with here and there a small number of polymorphonuclear leucocytes. There was some free blood in the meninges, but this might have occurred consequent to removal of the brain. Along the sheaths of the vessels penetrating into the cerebral substance from the pia mater there were found a small number of lymphocytes, and some of the deeper vessels were also involved in the same manner. There appeared to be some mobilization of neuroglia cells, amoeboid forms being present in the upper layers of the cortex. The nerve cells of the cortex showed considerable swelling and loss of chromatin bodies but rupture of the cells or definite disease of the nuclei was not observed. The nerve cells of the basal ganglia and thalamus were swollen and showed chromatolysis. In these parts there were no inflammatory manifestations, but the hypothalamus showed marked perivascular round-cell infiltration and congestion of the vessels. Acute cellular degenerative changes were prominent, although there was but slight neuroglia reaction. The cerebellum and medulla oblongata showed only mild chromatolysis and satellitosis of the ganglion cells.

#### MONKEY 31

In April, 1925, this monkey had been inoculated in the carotid artery with 1 cubic centimeter of a coccus culture obtained in a study of poliomyelitis. No symptoms followed.

10-21-25: Inoculated intracerebrally with 0.5 cubic centimeter culture P-95 (10) diluted 1 to 200. No symptoms followed.

11-13-25: Inoculated intraperitoneally with 2 cubic centimeters culture P-95 (14).

11-14-25: Inoculated intraperitoneally with 2 cubic centimeters culture P-95 (14).

11-17-25: Inoculated intraperitoneally with 2 cubic centimeters culture P-95 (14).

11-18-25: Inoculated intraperitoneally with 2 cubic centimeters culture P-95 (14).

11-19-25: Inoculated intraperitoneally with 2 cubic centimeters culture P-95 (15).

11-20-25: Inoculated intraperitoneally with 2 cubic centimeters culture P-95 (15).

11-21-25: Inoculated intraperitoneally with 2 cubic centimeters culture P-95 (15).

11-23-25: Inoculated intracerebrally with 0.25 cubic centimeter culture P-95 (15).

No symptoms followed any of these inoculations.

An injection of culture equal to the final dose proved fatal to an untreated monkey. (See monkey 38, below.) Therefore the conclusion seems warranted that monkey 31 had been immunized by the previous treatment.

#### MONKEY 38

11-23-25, 3.35 p. m.: Inoculated intracerebrally with 0.25 cubic centimeter culture P-95 (15).

11-24-25, 9.15 a. m.: "The monkey shows some pallor, with cyanosis of the scalp. He is sluggish, must be roused to activity, and then shows tremors.

No difference is noted in the face. The left arm is held in flexion and partial pronation, the fingers inclosing the thumb. The limb seems hypertonic rather than flaccid and is scarcely used at all. When moved it shows moderate tremors. The left leg is weak. During the examination the animal fell over on its left side and lay there."

Noon: "The monkey is sitting up but shows marked tremors when attempting to move."

3.30 p. m.: "Sitting up in corner of cage, the head drooping forward on the chest, apparently dozing. Rouses quickly on stimulation, but soon relapses."

4 p. m.: "Convulsions."

5.15 p. m.: "Found lying down. When light is turned on he rouses quickly, but almost immediately closes his eyes and pays little attention to what is going on. He is easily aroused by noises or by light flashed on him. The same weakness and lack of movement of the left arm and leg are noticed, but there is nothing significant in the face. The pupils are equal and react to light. There is no nystagmus. When sitting up he lets his head fall forward, assumes a hunched position, and goes to sleep."

11-25-25, 9 a. m.: "Very weak. He can sit up when aroused, but soon falls over, always on the left side. Tremors are less marked. Temperature, 36.8°."

3.30 p. m.: "Lying motionless, with eyes closed. The monkey is easily roused, looks brightly at the examiners, but does not try to move, and almost immediately closes his eyes again. The breathing is normal in rate and depth."

11-26-25, 12.45 p. m.: "Animal lies motionless, with eyes closed. When his right hand is touched with the stick he clutches it with a good grip, but without opening his eyes. He is roused with greater difficulty. Once with the aid of the stick he pulled himself up to a sitting position, using his right hand alone, but he fell over almost immediately."

No further convulsions were noted. The animal died during the night.

Heart blood, liver, lung, and brain were planted.

11-28-25: No growth from heart blood. Lung sparsely seeded, liver heavily seeded, and brain very heavily seeded with P-95.

At the necropsy the blood vessels of the subcutaneous tissue and omentum were found congested, the lungs showed hypostatic congestion without pneumonia, the heart muscle was rather soft, but the liver and kidney showed no appreciable gross changes. The leptomeninges were markedly congested, but there was no purulent exudate visible. The brain was somewhat soft. Section through the cerebrum revealed many small red points of congested vessels in various parts. In the basal ganglia, however, there were large areas of irregular reddish-stained tissue with yellowish surroundings. The brain substance was soft in this area but not diffuent. The reaction was more marked on the right side, but quite pronounced upon the left. Sections through the cerebellum and medulla disclosed no similar areas of hemorrhagic encephalitis.

Microscopically the heart showed severe toxic changes and several foci of lymphocytic infiltration, an acute interstitial nonsuppurative myocarditis. The lungs, in addition to some old foci of fibrosis, showed only congestion, without polynuclear infiltration. The spleen showed large germinal follicles and congestion, the kidney rather marked degeneration of the tubular epithelium but no abscess formation. The meninges of the cerebrum showed marked infiltration by leucocytes, distention of the veins, and moderate escape of erythrocytes into the meshes of the tissue. The cerebral substance was edematous. The cerebral cortex showed rather severe toxic changes, swelling of ganglion cells and fragmentation of chromatin granules, and some glia mobilization. There was also infiltration of the sheaths of the vessels by adventitious cells, polymorphonuclear leucocytes predominating. In the

putamen there were many areas of focal hemorrhage, with necrosis of all cerebral tissue, complete degeneration of the nervous elements, abundance of amoeboid and phagocytic neuroglia cells, many of which were also degenerated, and infiltration by large numbers of leucocytes. In addition there were areas of leucocytic infiltration, which appeared to be going on to abscess formation. The endothelium of vessels was swollen and their vascular sheaths were packed with leucocytes and round cells. Microorganisms were visible singly and in groups, sometimes in curved chains. Some large coccoid bodies were found staining pale blue with azure. The glia cells showed abundant granules in their cytoplasm, some of which were recognizable as cocci, others of which were disintegrating. Coccoid bodies were found within glia cells in a few instances. No definite similarity to Negri bodies was to be observed, however, and the ganglion cells did not contain foreign bodies.

The inflammation was most marked in the putamen, next in the cerebral cortex and tectum mesencephali, less in the thalamus, hypothalamus, locus niger, and scarcely at all in the cerebellum and medulla oblongata. The choroid plexus was also the seat of leucocytic infiltration, and the ventricular cavities contained numerous leucocytes.

This picture differed considerably from that found in human encephalitis in that leucocytes were numerous and hemorrhages had occurred in the basal ganglia. It was more like the polioencephalitis hemorrhagica described by Wernicke. The explanation may lie in the greater virulence of the organism or in the peculiarity of the reaction of the tissues of the monkey, but is probably found in the early stage at which death occurred. There was no abscess at the site of the inoculation, and the lesions were about equally severe on both sides.

#### MONKEY 39

12-1-25, 3.45 p. m.: Inoculated intracerebrally with 0.25 cubic centimeter culture P-107 (7).

12-2-25, 9 a. m.: "Monkey has been rather hard hit. He shows marked tremors in voluntary movements. Every minute or two he yawns, stretching his mouth to the fullest extent. This is apparently an involuntary, forced action. The eyes are somewhat protruded and staring, move fully and concertedly without nystagmus, but rove about rather wildly. The hind quarters appear somewhat disabled, although the animal was not taken from the cage for demonstration of this point."

11.30 a. m.: "The animal is found crouched in the cage, his face touching the floor. When roused, he sits up, looks alertly around him, and yawns; and when left alone he sinks forward on the floor again and dozes. Temperature 38.4°."

12-3-25, 9 a. m.: "He is found wide awake, eating, leaning up against the side of the cage for support. The right hind limb is crumpled under him in a helpless manner. There are moderate tremors and incoordinated movements."

12-3-25, 3.55 p. m.: "Animal lies motionless in a crouched position, his head resting on the water cup. He blinks his eyes frequently at the observer but makes no attempt to get up. No ocular paralyses are observed."

Same day, 4.15 p. m.: "Dead. Placed in ice box."

12-4-25: At autopsy the brain was found congested, but no other lesions were observed. Heart blood, liver, lung, and brain were planted.

12-5-25: No growth from heart blood or liver; lung sparsely seeded, brain heavily seeded with P-107.

The gross and microscopic lesions in the case of this monkey resembled so closely those found in monkey 38 that no further description is considered necessary. There was, perhaps, slightly less reaction on the part of the neuroglia and the



suppurative process had gone forward to a somewhat less extent. The nature of the inflammation in the two cases was exactly similar. The inflammatory reaction about the aqueduct of Sylvius is shown in fig. 11, pl. IV.

#### SUMMARY

A pleomorphic streptococcus, highly virulent for rabbits when inoculated intracerebrally, was obtained from the nasal washings, heart blood, and mesencephalon of a case of epidemic encephalitis.

In so far as the comparative tests have been made, this streptococcus agreed with the streptococci obtained from cases of epidemic encephalitis by Von Wiesner and by Rosenow. Apparently several other investigators have cultivated the same organism in their studies of the disease.

When inoculated intravenously into rabbits the streptococcus shows a tendency to elective localization in the brain.

In rabbits and in monkeys it produces nervous symptoms which in some cases simulate the disease in man.

Rabbits inoculated with this streptococcus show no inflammatory lesions outside of the central nervous system. The meninges are heavily infiltrated with lymphocytes and leucocytes, the inflammation spreads to the cerebral substance by direct extension and along the small vessels, penetrating into the brain. There are severe parenchymatous degenerative changes in the nervous tissue and reaction of the neuroglia. The sheaths of the blood vessels are found infiltrated by lymphocytes. The reaction is sometimes most marked in the mesencephalon.

In monkeys there is noted a greater tendency toward leucocytic reaction, and in two instances large areas of hemorrhagic inflammation in the basal ganglia were noted.

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TABLE 1.—Results of intraperitoneal and intravenous inoculation of rabbits with strain P-95

Rabbit No.	Passage No.	Date of inoculation	Condition of culture	Mode of inoculation	Amount of inoculum	Result	Bacteriologic findings
51	3	Aug. 14, 1925	24-hour culture; third culture generation from heart blood of rabbit 38.	Intravenous	C. c. 2.0	Dead, 42 hours	Brain and liver heavily seeded with P-95.
49	3	do.	3-day culture, second culture generation from liver of rabbit 48.	Intraperitoneal	2.0	No symptoms	
	4	Aug. 18, 1925	do.	Intravenous	2.0	do.	
	5	Aug. 21, 1925	24-hour culture planted with brain of rabbit 71.	do.	2.0	Head retracted; stiffness of limbs; finally less of use of hind legs. Chloroformed when dying, 66 hours after last inoculation.	No growth from heart blood or liver; lung sparsely seeded with an extraneous coccus (not virulent when inoculated intracerebrally into rabbits); brain heavily seeded with P-95.
156	4	Oct. 10, 1925	29-day culture planted with brain of rabbit 111.	do.	1.0	No symptoms	
	10	Oct. 14, 1925	6-day culture planted with brain of rabbit 146.	do.	2.0	Dead, 22 hours	Heart blood and lung sparsely seeded, liver moderately seeded, and brain very heavily seeded with P-95.
196	12	Nov. 5, 1925	7-day culture planted with brain of rabbit 179.	Intraperitoneal	2.0	No symptoms	
	13	Nov. 9, 1925	2-day culture planted with brain of rabbit 195.	Intravenous	2.0	Hind legs paralyzed. Continuous clonic movements of fore legs and lower jaw. Dead, 69 hours.	No growth from heart blood or lung, liver sparsely seeded, brain very heavily seeded with P-95.
261	4	Nov. 28, 1925	24-hour culture planted with brain of rabbit 241.	do.	.5	Dead, 46 hours	Heart blood, no growth; liver and lung very sparsely seeded, brain very heavily seeded with P-95.
262	4	do.	do.	do.	.5	Dead, 41 hours	Heart blood and lung no growth; liver and brain heavily seeded with P-95.

TABLE 2.—*Experiments to show protection of rabbits against intracerebral inoculation*<sup>1</sup>

Rabbit No.	Passage No.	Date of inoculation	Condition of culture	Mode of inoculation	Amount of inoculum	Result	Bacteriologic findings
46	3	Aug. 14, 1925	24-hour culture, third culture generation from heart blood of rabbit 38.	Intravenous.....	C. c.	No symptoms.....	No growth from heart blood, liver, or lung. Brain sparsely seeded with P-95.
	4	Aug. 18, 1925	3-day culture, second culture generation from liver of rabbit 48.	do.....	0.5	do.....	
	5	Aug. 21, 1925	24-hour culture planted with brain of rabbit 71.	do.....	2.0	do.....	
	6	Aug. 25, 1925	24-hour culture planted with brain of rabbit 49.	Intracerebral.....	.25	Paralysis of hind legs. Wild circulatory movement of head, which is retracted when at rest. (See fig. 4.) Chloroformed when dying, 6 days after last inoculation.	
50	3	Aug. 14, 1925	24-hour culture, third culture generation from heart blood of rabbit 38.	Intraperitoneal.....	2.0	No symptoms.....	No streptococci from heart blood, liver, lung, or brain. Brain was sparsely seeded with a staphylococcus.
	4	Aug. 18, 1925	3-day culture, second culture generation from liver of rabbit 48.	Intravenous.....	2.0	No symptoms.....	
	5	Aug. 21, 1925	24-hour culture planted with brain of rabbit 71.	do.....	2.0	No symptoms.....	
	6	Aug. 25, 1925	24-hour culture planted with brain of rabbit 49, diluted 1 to 10.	Intracerebral.....	.25	Tremors, incoordination, head retracted, temperature 42° C. on second day. Recovered except for increasing distortion of head, until finally right eye was turned toward the left. (See fig. 7.) Could not walk but rolled over and over. Died of peritonitis 41 days after last inoculation.	
158	8	Oct. 10, 1925	14-day culture planted with brain of rabbit 134.	Intravenous.....	2.0	No symptoms.....	On second day weakness, tremors, stiffness of limbs. Complete recovery by the tenth day.
	9	Oct. 14, 1925	6-day culture planted with brain of rabbit 149.	do.....	2.0	do.....	
	10	Oct. 15, 1925	7-day culture planted with brain of rabbit 139.	do.....	2.0	do.....	
	10	Oct. 16, 1925	1-day culture planted with brain of rabbit 149.	do.....	2.0	do.....	
10	10	Oct. 20, 1925	5-day culture planted with brain of rabbit 160, diluted 1 to 100.	Intracerebral.....	.25	On second day weakness, tremors, stiffness of limbs. Complete recovery by the tenth day.	

<sup>1</sup> Controls: As controls for rabbit 46, 10 rabbits were inoculated with undiluted culture of P-95, the passage numbers varying from the third to the seventeenth. In every case death resulted in less than 18 hours.

As controls for rabbits 50 and 158, 1 rabbit (third passage) inoculated with a 1 to 10 dilution of P-95 died in less than 18 hours; 4 rabbits (passages varying from the fourth to the fifteenth) inoculated with 1 to 100 dilutions died between the eighteenth and thirtieth hours; 2 rabbits (fifth and eighteenth passages) inoculated with 1 to 1,000 dilutions died in 41 and 22 hours, respectively.

A control rabbit inoculated at the same time as rabbit 158, with the same inoculum, died in 21 hours.

TABLE 3.—*Identification of strains P-95 and P-104 by cross protection. Immunizing treatment was with strain P-95, given intravenously or intraperitoneally; the test dose was with strain P-104, given intracerebrally*

Treated rabbits				Untreated rabbits (controls)	
Rabbit No.	No. of immunizing doses	Test inoculation		Rabbit No.	Result
		Date	Condition of culture		
155	4	Oct. 27, 1925 (4 days after last intravenous inoculation).	19-day culture diluted 1 to 10.	178	Marked nervous symptoms, slow recovery. Hind legs slightly stiff a month after inoculation.
197	4	Nov. 24, 1925 (6 days after last intravenous inoculation).	30-day culture.....	239	Dead, 16 hours.
					Complete recovery in 3 weeks.

TABLE 4.—*Rabbits which survive a brain infection are not protected against subsequent inoculation*

Rabbit No.	Preliminary inoculation <sup>1</sup>			Fatal inoculation		Number of hours to death of control rabbit
	Date	Inoculum	Result	Date	Inoculum	
67	Aug. 18, 1925	3-day culture planted with human mesencephalon.	Nervous symptoms with complete recovery. (See text, pp. 1106, 1107.)	Oct. 7, 1925	12-day culture of P-95 (ninth passage).	7
61	Aug. 17, 1925	2-day culture planted with human mesencephalon.	Severe illness with marked nervous symptoms, and final recovery. (See text, pp. 1106, 1107.)	Feb. 16, 1926	13-day culture of P-107 diluted 1 to 100 (twelfth passage).	43
					Dead, 5 hours.	
					Dead, 22 hours.	

<sup>1</sup> All inoculations were intracerebral, with 0.25 cubic centimeter of culture.

## PUBLIC HEALTH ENGINEERING ABSTRACTS

**Greater Travel Causes Demand for More Comfort Stations.** Anon. *The Nation's Health*, Vol. 8, No. 2, February 15, 1926, pp. 110-112. (Abstracted by C. G. Gillespie.)

Michigan, Minnesota, and Wisconsin laws require cities and villages to erect and maintain public comfort stations. In Minnesota there are 385 tourist resorts, all provided with public comfort stations. Gas filling stations maintain 1,800 additional such stations. In Wisconsin 469 municipalities have comfort stations ranging from 1 or 2 per 5,000 people to 10 to 30 for cities with populations of 400,000. One toilet bowl for each 1,000 females served, one toilet seat and one urinal for each 1,000 males, and one lavatory for each set of toilet fixtures are provided. Many communities are meeting the problem in a satisfactory manner by building suitable, creditable buildings.

**Safeguarding the City's Milk Supply.** H. C. Becker, Director of Tuberculosis Eradication, Chicago Department of Health. *Chicago Municipal Tuberculosis Sanitarium Bulletin*, Vol. 6, No. 1, January, 1926, pp. 1-5. (Abstracted by Isador W. Mendelsohn.)

Chicago's milk supply is obtained from about 300,000 cows on 25,000 farms, located in northern Illinois, southern Wisconsin, northwestern Indiana, and southwestern Michigan. About 1,250,000 quarts of milk are consumed daily in the city. The sanitary production of this milk on the farms is supervised by Chicago health department inspectors, traveling in automobiles. Unless corrections are made where insanitary conditions exist, the milk is barred from entry into the city. The cooperation of the local health authorities and physicians is secured where possible in reporting and properly handling communicable diseases occurring among the 100,000 persons living on the farms supplying milk to Chicago.

The milk is transported over 25 steam and electric railroads and by auto trucks to creameries in the country or in Chicago, where the milk is pasteurized and bottled. Milk samples are collected by the health department inspectors, and chemical, bacterial, temperature, and sedimentation tests are made.

The 511 milk dealers in the city use about 4,000 wagons and auto trucks in delivering milk to the consumers. All persons selling milk in the city must be licensed by the health department.

**Studies on Pasteurization.** William T. Johnson, jr., Assoc. Bacteriologist, Dairy Bureau, United States Department of Agriculture, Grove City, Pa. *Second Annual Report*, 1926, Pennsylvania Association of Dairy and Milk Inspectors, pp. 122-126. (Abstracted by H. A. Whittaker.)

The writer gives some recent laboratory experiments on a number of representative *Bacillus coli* organisms in order to determine their ability to withstand pasteurizing temperatures. It is concluded from these experiments that a pasteurizing temperature of 145° F., held for 30 minutes, was a critical temperature for the colon organism, and that some strains do actually survive pasteurizing temperatures.

The author also brings out the difference between "majority" and "absolute" thermal death points of organisms as applied to pasteurization. Reference is made to certain experiments conducted on *Bacillus aerogenes* to show what a wide discrepancy exists between these two temperatures. The following statement is made relative to this subject:

Since all nonspore-bearing bacterial cells are similar to *B. aerogenes* in this respect, it is quite important that the selection of an effective pasteurization temperature must be based on the "absolute" thermal death point of pathogenic organisms, determined under laboratory conditions and in milk. Large scale efficiency tests are not necessary, and are likely to be misleading and wrongly interpreted, so as to give a false sense of safety. Knowing the "absolute" thermal death point of pathogenic organisms, the most valuable work for the future, in connection with pasteurization, will be a study of the temperatures obtained in commercial practice, and the development of suitable instruments for determining that all of the milk in a given pasteurizing process is heated to a point which will provide a safe margin above the "absolute" death point of pathogenic organisms.

**Algæ.** W. C. Purdy, Plankton Expert, United States Public Health Service. *Water Works*, Vol.63, No. 1, January 14, 1925, p. 115. (Abstracted by W. C. Purdy.)

Visible mats and masses of the larger algæ are common in streams and sometimes in water reservoirs. The microscopic forms, however, are the most likely to give trouble by producing tastes or odors, or by clogging filters.

Copper sulfate is not always successful in combating algal growth. Chlorine has been used with good results where  $\text{CuSO}_4$  has failed.

Sir A. C. Houston suggests a coagulant, to be followed by lime, the latter to remove any  $\text{CO}_2$  present, as this gas is a food material for algæ. Another worker tried  $\text{CuSO}_4$ , also excess lime, with poor results. Then sulfuric acid was used in sufficient amount to neutralize all bicarbonates present, thereby removing this source (bicarbonates) of  $\text{CO}_2$  for algal food. Good results followed this plan.

Algæ may be an actual asset to the water on account of the excess oxygen they produce by photosynthesis, this oxygen being available for aerobic bacterial decomposition of organic matter. The extensive plant-filled shallow portions of the Potomac River were found to produce sufficient oxygen in this way to be a very material help in the oxidation of Washington sewage.

This production of excess oxygen is shared by the microscopic algæ also, or the phytoplankton. The plankton of some streams

consists chiefly of these minute plants, rather than of animals. Nearly a thousand weekly samples taken from the Illinois River at various points over a period of 14 months show a plant content of 65 to 95 per cent of the total plankton. Thus, even a minute portion of water may possess a microscopic but efficient "Home Guard" which, cooperating with its allies of aerobic bacteria, will successfully compete with invasions of organic matter.

**Prevention of Stream Pollution Profitable.** Anon. *Domestic Engineering*, Vol. 114, No. 11, March 13, 1926, p. 66. (Abstracted by Arthur P. Miller.)

This short article points out that, in Michigan, the prevention of stream pollution is a profitable procedure. The elimination of the polluting matter is being accomplished not only at a gain in public health and a saving to aquatic life, but at an eventual profit to those concerns that have been causing the pollution. Several examples are pointed out, as, for instance, the tanneries, which have taken steps to recover hair and fertilizer that has been going into the rivers for years. The hair is recovered and sold for \$75 a bale, while the fertilizer is in great demand. A paper mill has been dumping its waste water, pulp, and acid into a southern Michigan river, and it is said has spent \$50,000 for waste treatment research but already this company is recovering from experimental work alone an average of \$5,000 per year.

**Zeolite Serves Twenty Months Without Changing.** F. B. Beech. *Water Works Engineering*, Vol. 79, No. 3, February 1, 1926, pp. 147-148. (Abstracted by A. H. Wieters.)

The writer describes a zeolite water-softening plant installed by the Ohio Valley Water Co. A small plant was installed in 1922 for the purpose of softening the boiler feed water and for experimental purposes. This plant paid for itself in 10 months, and after 404 days of continuous operation the zeolite was removed and showed no appreciable alteration except a slight increase in manganese content.

The article describes in detail the zeolite used. This is the "green sand," or glauconite, found chiefly in New Jersey. The theory of zeolite softening is also described in detail.

It was found that a rate of 6 gallons per square foot per minute produces water of 0 hardness where the water contains not more than 16 grains of hardness. Harder waters required lower rates. Changes in the method of salt application resulted in the lowering of the amount of salt used for  $\frac{1}{2}$  to  $\frac{1}{3}$  pound of salt per 1,000 grains of hardness removed.

No cost data were given except the statement that the cost was practically the same as for the lime-soda process. A typical analysis of the water is given showing, among other things, a reduction of the hardness from 151.4 to 0 in p. p. m.



The advantages of this process over the lime-soda process are noted as follows: Removal of manganese and grenothrix; more complete softening; requires far less space; more flexible and certain; and does not require a highly-trained operator.

## COURT DECISIONS RELATING TO PUBLIC HEALTH

*Right of regents of University of California to require that students be vaccinated upheld.*—California First District Court of Appeal; *Wallace v. Regents of University of California et al.*, 242 P. 892; decided November 20, 1925.) A rule imposed by the regents of the University of California required that every person in attendance as a student at said institution should provide satisfactory evidence to the authorities in charge that he or she had been successfully vaccinated against smallpox within seven years prior to application for admission. Petitioner in this case was refused admission as a student because of failure to comply with the vaccination requirement. He applied for a peremptory writ of mandate to compel the university authorities to admit him, claiming that the regents had no authority to exact such a requirement and that the regulation was invalid and contrary to existing general law. Chapter 370, Laws of 1921, provided that "The control of smallpox shall be under the direction of the State board of health, and no rule or regulation on the subject of vaccination shall be adopted by school or local health authorities." It had previously been held that the board of regents, under section 9 of article 9 of the State constitution, had, at the time the rule in question was promulgated, power to adopt and enforce regulations concerning health measures and to require vaccination as a prerequisite to the admission of a student to the university, as at that time there was an absence of legislation lawfully limiting the exercise of that power. The court decided in favor of the university and denied the writ of mandate, the reasons therefor being shown by the following quotation from the opinion:

There is no question but that the legislature may under its police power limit or abrogate this right [of the regents to adopt health regulations and to require vaccination], and in fact respondents do not claim otherwise, for they concede that the power vested under the constitution in the regents is not so broad as to destroy or limit the general power of the legislature to enact laws for the general welfare of the public, including laws regulating the subject of vaccination, even though it might incidentally affect the University of California, as such a law would be paramount as against a rule of the regents in conflict therewith. They do claim, however, that no such law exists, as neither the legislature nor the board of health under its grant of power has attempted to pass any law or rule which in any manner contravenes the regents' regulation in reference to the matter since the passage of the act of 1921.

The present law [chapter 370, Laws of 1921] does not itself attempt to regulate the subject, but it merely delegates to the board in question certain powers. Whatever rights this body may have under this grant of power is a matter with which we are not here concerned, for it has made no attempt to exercise any power whatsoever. The legislative declaration that no rule or regulation shall be adopted by school or local health authorities is not a regulation, nor, in fact, is it a health law, but rather, under the circumstances, it is one in effect which forbids or prevents the adoption of a health measure, at least until such time as a rule or regulation on the subject has been adopted in conformity with the provisions of the act.

In so far as the act may be considered as a prohibition or limitation upon the constitutional power of the university to pass health laws, it is clearly void. The legislature can not, by this character of a general law, take away or impair the power so granted. In order to accomplish this result it must itself regulate the subject by appropriate legislation. A general law which does not itself regulate, but which merely provides, as here, that there shall be no local regulation, can have no proper application to local bodies deriving their powers under a constitutional grant, as such law amounts to no more than a legislative attempt to nullify such constitutional grant, and it is to that extent invalid.

*County not liable for expense of sanitary work not authorized by county board of health.*—(Montana Supreme Court; *Pue v. Lewis and Clark County*, 243 P. 573; decided January 23, 1926.) The plaintiff brought an action against Lewis and Clark County to recover for the value of certain sanitary work performed by him in cleaning vaults, etc. This work was done at the direction of the county health officer, who, however, had not received authorization for the doing of the same from the county board of health. It was also shown that the county health officer had assumed to appoint a deputy county health officer who took part in the inspection of premises to be cleaned. The lower court granted a nonsuit on the motion of the defendant, on the ground that no authority had been disclosed, either in the county health officer or so-called deputy county health officer, to incur the indebtedness upon which the complaint was based. The supreme court affirmed the judgment of the lower court, holding that, under the statutes, authority to perform such work was required to be given by the county board of health. The court stated that since the county health officer "did not seek and was not granted authority from the county board of health to enter into the contract or incur the expense made the basis of plaintiff's cause of action, he had no authority to make the contract or incur such expense, and consequently the plaintiff wholly failed to prove the contract set out in his complaint." The court also stated that no authority had been discovered in the statutes for the appointment of a deputy health officer.

*Evidence held not sufficient to show that water furnished was cause of typhoid fever.*—(Washington Supreme Court; *Webber et ux. v. Pacific Power & Light Co.*, 242 P. 1104; decided February 10, 1926.) The

plaintiffs, husband and wife, sought to recover damages from the defendant company on the ground that the wife's illness with typhoid fever was due to the use of infected water furnished by the defendant. A jury returned a verdict for the plaintiffs and judgment was entered thereon. On appeal the supreme court held that the evidence was insufficient to show that the wife's illness was caused by the water furnished by the defendant.

*Tuberculosis held compensable under workmen's compensation act.*—(Texas Court of Civil Appeals; Aetna Life Ins. Co. v. Graham et al., 279 S. W. 923; decided December 24, 1925.) One of the points decided in this case was that tuberculosis, developing from an irritated condition of the nose, throat, and lungs caused by the inhalation of fumes incident to the mixture of chemicals in making shoe polish, was a compensable injury under the Texas workmen's compensation law.

*Town held liable for damages caused by sewage pollution of stream.*—(North Carolina Supreme Court; Cook et al. v. Town of Mebane, 131 S. E. 407; decided January 27, 1926.) One of the grounds of complaint in this case was that the town of Mebane by the discharge of sewage had polluted the stream which flowed through the land of plaintiffs to the damage of their land and mill site. The jury found for the plaintiffs and the judgment of the lower court thereon was affirmed by the supreme court.

*Damages allowed for illness resulting from sight of dead cockroaches in pie being eaten.*—(New York Supreme Court, Appellate Division; Carroll v. New York Pie Baking Co., 213 N. Y. S. 553; decided January 22, 1926.) The plaintiff, while eating a piece of pie cut from a pie made by the defendant, discovered that several crushed cockroaches were imbedded in the bottom crust of the pie. The sight of them made her ill and action was brought to recover damages on account of the illness. A judgment for plaintiff, entered on the verdict of a jury, was affirmed by the court.

*City meat inspection ordinance held valid.*—(Maryland Court of Appeals; Mayor and City Council of Baltimore et al. v. Bloecher and Schaff (Inc.), et al., 132 A. 160; decided January 14, 1926.) Ordinance No. 431, adopted on June 25, 1925, by the city of Baltimore and regulating the slaughtering, etc., of animals for human food, was attacked on the ground that it infringed constitutional provisions, but the court held the ordinance to be a valid and constitutional exercise of legislative power by the mayor and city council of Baltimore.

## Examinations for Entrance into the Regular Corps of the Public Health Service

Examinations of candidates for entrance into the Regular Corps of the United States Public Health Service will be held at the following-named places on the date specified:

Washington, D. C., July 12, 1926.

Chicago, Ill., July 12, 1926.

New Orleans, La., July 12, 1926.

San Francisco, Calif., July 12, 1926.

Candidates must be not less than 23 nor more than 32 years of age, and they must have been graduated in medicine at some reputable medical college, and have had one year's hospital experience or two years' professional practice. They must pass satisfactorily oral, written, and clinical tests before a board of medical officers and must undergo a physical examination.

Successful candidates will be recommended for appointment by the President, with the advice and consent of the Senate.

Requests for information or permission to take this examination should be addressed to the Surgeon General, United States Public Health Service, Washington, D. C.

## DEATHS DURING WEEK ENDED MAY 22, 1926

*Summary of information received by telegraph from industrial insurance companies for week ended May 22, 1926, and corresponding week of 1925. (From the Weekly Health Index, May 26, 1926, issued by the Bureau of the Census, Department of Commerce)*

	Week ended May 22, 1926	Corresponding week 1925
Policies in force.....	63, 426, 726	59, 943, 647
Number of death claims.....	12, 655	11, 906
Death claims per 1,000 policies in force, annual rate..	10. 4	10. 4

*Deaths from all causes in certain large cities of the United States during the week ended May 22, 1926, infant mortality, annual death rate, and comparison with corresponding week of 1925. (From the Weekly Health Index, May 26, 1926, issued by the Bureau of the Census, Department of Commerce)*

City	Week ended May 22, 1926		Annual death rate per 1,000 corresponding week 1925	Deaths under 1 year		Infant mortality rate, week ended May 22, 1926 *
	Total deaths	Death rate †		Week ended May 22, 1926	Corresponding week, 1925	
Total (64 cities).....	7, 329	13. 3	12. 9	858	800	2 71
Akron.....	38			5	6	53
Albany †.....	35	15. 3	16. 8	1	5	21
Atlanta.....	81			6	13	
White.....	27			2		
Colored.....	54	(9)		4		
Baltimore †.....	259	16. 7*	15. 1	33	19	96
White.....	191			19		68
Colored.....	68	(9)		14		227

\* Annual rate per 1,000 population.

† Deaths under 1 year per 1,000 births. Cities left blank are not in the registration area for births.

\* Data for 62 cities.

† Deaths for week ended Friday, May 21, 1926.

\* In the cities for which deaths are shown by color, the colored population in 1920 constituted the following percentages of the total population: Atlanta 31, Baltimore 15, Birmingham 38, Dallas 15, Fort Worth 14, Houston 25, Kansas City, Kans., 14, Louisville 17, Memphis 38, Nashville 30, New Orleans 26, Norfolk 38, Richmond 22, and Washington, D. C., 25.

Deaths from all causes in certain large cities of the United States during the week ended May 22, 1926, infant mortality, annual death rate, and comparison with corresponding week of 1925. (From the Weekly Health Index, May 26, 1926, issued by the Bureau of the Census, Department of Commerce)—Continued

City	Week ended May 22, 1926		Annual death rate per 1,000 corresponding week 1925	Deaths under 1 year		Infant mortality rate, week ended May 22, 1926
	Total deaths	Death rate		Week ended May 22, 1926	Corresponding week, 1925	
Birmingham	72	17.8	19.0	4	9	—
White	26	—	—	1	—	—
Colored	46	( <sup>5</sup> )	—	3	—	—
Boston	245	16.2	15.5	24	40	68
Bridgeport	53	—	—	5	2	85
Buffalo	159	15.2	12.6	26	20	108
Cambridge	36	15.4	10.0	5	1	83
Camden	38	15.1	10.9	2	3	34
Chicago	659	11.3	11.5	62	81	55
Cincinnati	140	17.8	15.8	14	13	87
Cleveland	194	10.5	10.2	30	24	78
Columbus	66	12.1	12.5	8	7	73
Dallas	45	11.7	11.9	7	6	—
White	32	—	—	5	—	—
Colored	13	( <sup>5</sup> )	—	2	—	—
Denver	59	10.8	14.5	1	9	—
Des Moines	26	9.3	14.0	1	4	17
Detroit	349	14.1	11.2	60	55	97
Duluth	20	9.2	8.0	3	0	70
El Paso	36	17.2	20.9	8	11	—
Erie	32	—	—	3	2	67
Fall River	26	10.3	10.5	4	3	58
Flint	35	13.3	8.0	7	3	116
Fort Worth	28	9.2	14.0	2	5	—
White	20	—	—	2	—	—
Colored	8	( <sup>5</sup> )	—	0	—	—
Grand Rapids	31	10.4	14.9	6	9	87
Houston	54	—	—	8	9	—
White	31	—	—	5	—	—
Colored	23	( <sup>5</sup> )	—	3	—	—
Indianapolis	105	14.9	11.6	9	7	66
White	88	—	—	8	—	—
Colored	17	—	—	1	—	—
Jacksonville, Fla.	38	20.5	15.3	1	4	125
White	17	—	—	3	—	—
Colored	21	—	—	3	—	—
Jersey City	66	10.8	11.6	10	11	71
Kansas City, Kans.	23	10.3	11.7	2	1	35
White	17	—	—	1	—	—
Colored	6	( <sup>5</sup> )	—	1	—	—
Kansas City, Mo.	97	13.5	13.3	14	7	131
Los Angeles	216	—	—	19	82	58
Louisville	85	14.3	14.5	10	7	86
White	61	—	—	8	—	—
Colored	24	( <sup>5</sup> )	—	2	—	—
Lowell	26	—	—	2	6	125
Lynn	26	13.0	9.6	1	4	37
Memphis	64	18.9	20.9	4	13	25
White	39	—	—	2	—	—
Colored	25	( <sup>5</sup> )	—	2	—	—
Milwaukee	120	12.1	15.1	16	21	74
Minneapolis	93	11.2	11.8	14	9	78
Nashville	56	21.3	18.4	6	7	—
White	32	—	—	4	—	—
Colored	24	( <sup>5</sup> )	—	2	—	—
New Bedford	26	—	—	7	1	122
New Haven	27	7.7	12.3	4	3	56
New Orleans	119	14.8	20.8	9	29	—
White	76	—	—	4	—	—
Colored	43	( <sup>5</sup> )	—	5	—	—
New York	1,546	13.6	12.6	171	176	69
Bronx Borough	175	10.1	9.3	16	16	53
Brooklyn Borough	528	12.3	11.7	56	63	57
Manhattan Borough	649	18.0	16.4	80	82	88
Queens Borough	142	9.7	8.3	17	13	77
Richmond Borough	52	10.0	15.1	2	2	35

<sup>4</sup> Deaths for week ended Friday, May 21, 1926.

<sup>5</sup> In the cities for which deaths are shown by color, the colored population in 1920 constituted the following percentages of the total population: Atlanta 31, Baltimore 15, Birmingham 39, Dallas 15, Fort Worth 14, Houston 25, Kansas City, Kans., 14, Louisville 17, Memphis 38, Nashville 30, New Orleans 26, Norfolk 38, Richmond 32, and Washington, D. C., 25.

Deaths from all causes in certain large cities of the United States during the week ended May 22, 1926, infant mortality, annual death rate, and comparison with corresponding week of 1925. (From the Weekly Health Index, May 26, 1926, issued by the Bureau of the Census, Department of Commerce)—Continued

City	Week ended May 22, 1926		Annual death rate per 1,000 corresponding week 1925	Deaths under 1 year		Infant mortality rate, week ended May 22, 1926
	Total deaths	Death rate		Week ended May 22, 1926	Corresponding week, 1925	
Newark, N. J.	112	12.7	10.8	25	9	120
Norfolk	32	9.6	10.2	4	6	74
White	18			2		59
Colored	14	( <sup>1</sup> )		2		99
Oakland	47	9.4	8.4	4	4	46
Oklahoma City	23			0	4	
Omaha	54	13.1	10.3	3	5	31
Paterson	34	12.4	17.7	3	7	52
Philadelphia	518	13.5	13.6	61	57	81
Pittsburgh	165	13.5	14.8	20	23	66
Portland, Oreg.	58			1	6	10
Providence	73	13.8	11.5	8	9	66
Richmond	47	13.0	14.3	4	5	50
White	28			3		59
Colored	19	( <sup>1</sup> )		1		35
Rochester	110	17.9	14.3	13	12	104
St. Louis	210	13.2	13.8	27	12	
St. Paul	52	10.9	17.2	3	5	27
Salt Lake City	36	14.1	11.9	2	2	28
San Antonio	62	15.8	12.1	16	10	
San Diego	39	18.5	13.3	2	5	42
San Francisco	124	11.4	12.6	7	18	42
Schenectady	24	13.5	9.0	1	1	29
Seattle	69			3	10	28
Somerville	23	12.0	16.3	3	2	78
Spokane	17	8.1	15.8	1	2	23
Springfield, Mass.	35	12.6	12.1	6	4	87
Syracuse	49	13.9	16.3	8	5	101
Toledo	75	13.3	10.3	10	7	97
Trenton	40	15.6	13.0	6	1	84
Utica	33	16.7	16.4	6	2	132
Washington, D. C.	152	15.0	11.1	10	9	57
White	87			4		33
Colored	65	( <sup>1</sup> )		6		109
Waterbury	19			5	5	107
Wilmington, Del.	30	12.6	11.5	3	5	70
Worcester	59	15.9	9.6	12	2	133
Yonkers	25	11.2	10.6	4	4	90
Youngstown	29	9.2	7.2	3	1	38

<sup>1</sup> In the cities for which deaths are shown by color, the colored population for 1920 constituted the following percentages of the total population: Atlanta 31, Baltimore 15, Birmingham 39, Dallas 15, Fort Worth 14, Houston 25, Kansas City, Kans., 14, Louisville 17, Memphis 38, Nashville 30, New Orleans 20, Norfolk 38, Richmond 22, and Washington, D. C., 25.

# PREVALENCE OF DISEASE

*No health department, State or local, can effectively prevent or control disease without knowledge of when, where, and under what conditions cases are occurring*

## UNITED STATES

### CURRENT WEEKLY STATE REPORTS

These reports are preliminary and the figures are subject to change when later returns are received by the State health officers

#### Reports for Week Ended May 29, 1926

ALABAMA		CALIFORNIA	
	Cases		Cases
Chicken pox.....	23	Cerebrospinal meningitis:.....	
Diphtheria.....	10	Fresno County.....	1
Influenza.....	15	San Diego.....	1
Malaria.....	19	San Francisco.....	1
Measles.....	271	Siskiyou County.....	1
Mumps.....	24	Chicken pox.....	190
Pellagra.....	20	Diphtheria.....	93
Pneumonia.....	36	Influenza.....	20
Scarlet fever.....	5	Measles.....	430
Smallpox.....	40	Mumps.....	207
Tuberculosis.....	64	Poliomyelitis:	
Typhoid fever.....	16	Los Angeles.....	3
Typhus fever.....	2	Los Angeles County.....	2
Whooping cough.....	53	Riverside County.....	1
		Southgate.....	1
ARIZONA		Rocky Mountain spotted fever—Fasson	
Chicken pox.....	8	County.....	1
Diphtheria.....	1	Scarlet fever.....	130
Influenza.....	151	Smallpox.....	14
Measles.....	80	Typhoid fever.....	13
Pneumonia.....	11	Whooping cough.....	51
Scarlet fever.....	4		
Smallpox.....	1	COLORADO	
Trachoma.....	316	Diphtheria.....	17
Tuberculosis.....	42	German measles.....	15
Typhoid fever.....	12	Impetigo contagiosa.....	1
		Measles.....	42
ARKANSAS		Mumps.....	2
Chicken pox.....	15	Pneumonia.....	2
Hookworm disease.....	2	Scarlet fever.....	26
Influenza.....	5	Smallpox.....	1
Malaria.....	10	Tuberculosis.....	75
Measles.....	40	Typhoid fever.....	1
Mumps.....	4	Vincent's angina.....	1
Pellagra.....	6	Whooping cough.....	54
Scarlet fever.....	4		
Trachoma.....	6	CONNECTICUT	
Tuberculosis.....	4	Cerebrospinal meningitis.....	1
Whooping cough.....	15	Chicken pox.....	48
		Conjunctivitis (infectious).....	3

CONNECTICUT—continued	Cases
Diphtheria.....	14
German measles.....	64
Influenza.....	7
Lethargic encephalitis.....	1
Measles.....	544
Mumps.....	12
Pneumonia (broncho).....	41
Pneumonia (lobar).....	33
Scarlet fever.....	54
Tuberculosis (all forms).....	51
Whooping cough.....	30

DELAWARE	Cases
Chicken pox.....	1
Diphtheria.....	4
Malaria.....	1
Measles.....	50
Pneumonia.....	2
Scarlet fever.....	6
Tuberculosis.....	1
Whooping cough.....	2

DISTRICT OF COLUMBIA	Cases
Chicken pox.....	21
Diphtheria.....	20
Measles.....	248
Pneumonia.....	31
Scarlet fever.....	20
Tuberculosis.....	20
Whooping cough.....	34

FLORIDA	Cases
Chicken pox.....	29
Diphtheria.....	13
Malaria.....	1
Measles.....	114
Mumps.....	29
Pneumonia.....	3
Scarlet fever.....	11
Smallpox.....	62
Tuberculosis.....	4
Typhoid fever.....	17
Whooping cough.....	28

GEORGIA	Cases
Chicken pox.....	26
Diphtheria.....	11
Dysentery.....	35
Hookworm disease.....	21
Influenza.....	20
Lethargic encephalitis.....	1
Malaria.....	34
Measles.....	137
Mumps.....	30
Paratyphoid fever.....	2
Pellagra.....	9
Pneumonia.....	30
Scarlet fever.....	4
Septic sore throat.....	9
Smallpox.....	27
Tuberculosis.....	25
Typhoid fever.....	14
Whooping cough.....	25

IDAHO	Cases
Cerebrospinal meningitis—Pocatello.....	1
Chicken pox.....	5
Measles.....	10

IDAHO—continued	Cases
Mumps.....	3
Scarlet fever.....	5
Smallpox.....	10
Whooping cough.....	1

ILLINOIS	Cases
Cerebrospinal meningitis:	
Cook County.....	1
St. Clair County.....	1
Diphtheria.....	72
Influenza.....	68
Lethargic encephalitis:	
Cook county.....	1
McDonough County.....	1
Measles.....	1,290
Pneumonia.....	355
Scarlet fever.....	336
Smallpox.....	21
Tuberculosis.....	399
Typhoid fever.....	8
Whooping cough.....	206

INDIANA	Cases
Chicken pox.....	49
Diphtheria.....	12
Influenza.....	9
Measles.....	873
Pneumonia.....	14
Scarlet fever.....	98
Smallpox.....	35
Trachoma.....	7
Tuberculosis.....	55
Typhoid fever.....	3
Whooping cough.....	65

KANSAS	Cases
Chicken pox.....	65
Diphtheria.....	11
Dysentery.....	1
German measles.....	17
Influenza.....	4
Measles.....	458
Mumps.....	29
Pneumonia.....	21
Scarlet fever.....	36
Smallpox.....	23
Tuberculosis.....	62
Typhoid fever.....	3
Whooping cough.....	150

LOUISIANA	Cases
Diphtheria.....	8
Influenza.....	20
Leprosy.....	1
Malaria.....	9
Pellagra.....	16
Pneumonia.....	42
Scarlet fever.....	11
Smallpox.....	16
Tuberculosis.....	44
Typhoid fever.....	12
Whooping cough.....	15

MAINE	Cases
Chicken pox.....	14
Diphtheria.....	1
German measles.....	57



MAINE—continued	Cases
Influenza.....	8
Measles.....	268
Mumps.....	53
Paratyphoid fever.....	2
Pneumonia.....	12
Scarlet fever.....	29
Tetanus.....	1
Tuberculosis.....	16
Typhoid fever.....	4
Vincent's angina.....	2
Whooping cough.....	65

MARYLAND<sup>1</sup>

Cerebrospinal meningitis.....	1
Chicken pox.....	119
Diphtheria.....	19
Dysentery.....	1
German measles.....	8
Influenza.....	6
Malaria.....	1
Measles.....	279
Mumps.....	194
Pneumonia (broncho).....	29
Pneumonia (lobar).....	29
Scarlet fever.....	47
Septic sore throat.....	4
Tetanus.....	1
Tuberculosis.....	67
Typhoid fever.....	10
Whooping cough.....	63

## MASSACHUSETTS

Chicken pox.....	137
Conjunctivitis (suppurative).....	12
Diphtheria.....	41
German measles.....	377
Influenza.....	6
Lethargic encephalitis.....	2
Measles.....	690
Mumps.....	161
Ophthalmia neonatorum.....	25
Pneumonia (lobar).....	79
Scarlet fever.....	234
Septic sore throat.....	5
Tetanus.....	1
Trachoma.....	2
Tuberculosis (pulmonary).....	133
Tuberculosis (other forms).....	33
Typhoid fever.....	8
Whooping cough.....	243

## MICHIGAN

Diphtheria.....	84
Measles.....	1,407
Pneumonia.....	134
Scarlet fever.....	329
Smallpox.....	13
Tuberculosis.....	392
Typhoid fever.....	5
Whooping cough.....	146

<sup>1</sup> Week ended Friday.

MINNESOTA	Cases
Cerebrospinal meningitis.....	1
Chicken pox.....	105
Diphtheria.....	37
Influenza.....	4
Lethargic encephalitis.....	1
Measles.....	600
Pneumonia.....	5
Poliomyelitis.....	2
Scarlet fever.....	229
Smallpox.....	10
Tuberculosis.....	86
Typhoid fever.....	3
Whooping cough.....	36

## MISSISSIPPI

Diphtheria.....	6
Scarlet fever.....	1
Smallpox.....	3
Typhoid fever.....	2

## MISSOURI

(Exclusive of Kansas City)

Cerebrospinal meningitis.....	1
Chicken pox.....	38
Diphtheria.....	68
Influenza.....	1
Measles.....	873
Mumps.....	10
Ophthalmia neonatorum.....	1
Scarlet fever.....	121
Septic sore throat.....	3
Smallpox.....	14
Tetanus.....	1
Trachoma.....	7
Tuberculosis.....	37
Typhoid fever.....	7
Whooping cough.....	58

## MONTANA

Cerebrospinal meningitis.....	1
Chicken pox.....	18
Diphtheria.....	2
German measles.....	20
Measles.....	132
Mumps.....	2
Rocky Mountain spotted fever:	
East Helena.....	1
Worden.....	1
Scarlet fever.....	18
Smallpox.....	2
Tuberculosis.....	2
Typhoid fever.....	1
Whooping cough.....	5

## NEBRASKA

Chicken pox.....	43
Measles.....	95
Mumps.....	5
Scarlet fever.....	71
Smallpox.....	20
Tuberculosis.....	5
Whooping cough.....	1

NEW JERSEY	Cases
Anthrax.....	1
Cerebrospinal meningitis.....	1
Chicken pox.....	178
Diphtheria.....	17
Influenza.....	6
Measles.....	1,437
Pneumonia.....	124
Poliomyelitis.....	2
Scarlet fever.....	180
Trachoma.....	1
Typhoid fever.....	8
Whooping cough.....	52

NEW MEXICO	Cases
Chicken pox.....	23
Conjunctivitis.....	1
Diphtheria.....	3
German measles.....	1
Malaria.....	2
Measles.....	10
Mumps.....	12
Pneumonia.....	7
Rabies (in animals).....	2
Scarlet fever.....	6
Tetanus.....	1
Tuberculosis.....	21
Whooping cough.....	36

NEW YORK (Exclusive of New York City)	Cases
Cerebrospinal meningitis.....	1
Chicken pox.....	194
Diphtheria.....	63
German measles.....	499
Influenza.....	43
Lethargic encephalitis.....	2
Malaria.....	3
Measles.....	2,472
Mumps.....	195
Ophthalmia neonatorum.....	3
Paratyphoid fever.....	1
Pneumonia.....	277
Scarlet fever.....	198
Septic sore throat.....	4
Smallpox.....	5
Tetanus.....	1
Trachoma.....	1
Typhoid fever.....	15
Vincent's angina.....	9
Whooping cough.....	306

NORTH CAROLINA	Cases
Chicken pox.....	52
Diphtheria.....	14
German measles.....	176
Measles.....	334
Ophthalmia neonatorum.....	1
Scarlet fever.....	20
Septic sore throat.....	2
Smallpox.....	33
Typhoid fever.....	6
Whooping cough.....	316

OKLAHOMA (Exclusive of Oklahoma City and Tulsa)	Cases
Cerebrospinal meningitis—Kiowa County..	1
Chicken pox.....	27

<sup>1</sup> Deaths.

OKLAHOMA—continued	Cases
Diphtheria.....	7
Influenza.....	55
Malaria.....	38
Measles.....	106
Mumps.....	3
Pellagra.....	16
Pneumonia.....	23
Scarlet fever.....	26
Smallpox.....	15
Typhoid fever.....	13
Whooping cough.....	43

OREGON	Cases
Cerebrospinal meningitis.....	4
Chicken pox.....	57
Diphtheria.....	13
Influenza.....	19
Measles.....	117
Mumps.....	34
Pneumonia.....	18
Scarlet fever.....	46
Septic sore throat.....	2
Smallpox.....	
Portland.....	10
Scattering.....	10
Tuberculosis.....	5
Typhoid fever.....	5
Whooping cough.....	37

PENNSYLVANIA	Cases
Cerebrospinal meningitis—Pittsburgh.....	1
Diphtheria.....	96
Lethargic encephalitis.....	1
Malaria.....	1
Measles.....	3,171
Scarlet fever.....	481
Smallpox.....	3
Trachoma—Pittsburgh.....	3
Typhoid fever.....	10

RHODE ISLAND	Cases
Chicken pox.....	6
Diphtheria.....	3
German measles.....	22
Measles.....	73
Mumps.....	1
Pneumonia.....	1
Scarlet fever.....	4
Tuberculosis.....	4
Whooping cough.....	13

SOUTH DAKOTA	Cases
Chicken pox.....	1
Influenza.....	1
Measles.....	32
Mumps.....	15
Pneumonia.....	3
Poliomyelitis.....	1
Scarlet fever.....	52
Smallpox.....	1
Trachoma.....	1
Tuberculosis.....	3
Whooping cough.....	14

TENNESSEE		WASHINGTON—continued	
	Cases		Cases
Cerebrospinal meningitis—Nashville.....	3	Diphtheria.....	25
Chicken pox.....	25	German measles.....	89
Diphtheria.....	6	Measles.....	77
Influenza.....	24	Mumps.....	22
Lethargic encephalitis—Cannon County.....	1	Scarlet fever.....	48
Malaria.....	5	Smallpox.....	43
Measles.....	397	Tuberculosis.....	10
Mumps.....	5		
Ophthalmia neonatorum.....	2		
Pellagra.....	29	WEST VIRGINIA	
Pneumonia.....	22	Chicken pox.....	15
Scarlet fever.....	21	Diphtheria.....	5
Smallpox.....	13	Influenza.....	12
Tetanus.....	2	Measles.....	690
Trachoma.....	2	Scarlet fever.....	36
Tuberculosis.....	44	Smallpox.....	1
Typhoid fever.....	15	Tuberculosis.....	34
Whooping cough.....	16	Typhoid fever.....	15
		Whooping cough.....	17
TEXAS			
Chicken pox.....	63	WISCONSIN	
Diphtheria.....	18	Milwaukee:	
Influenza.....	11	Chicken pox.....	66
Measles.....	8	Diphtheria.....	12
Mumps.....	50	German measles.....	2
Pellagra.....	3	Influenza.....	3
Pneumonia.....	5	Measles.....	312
Scarlet fever.....	30	Mumps.....	32
Smallpox.....	58	Pneumonia.....	40
Tuberculosis.....	31	Scarlet fever.....	20
Typhoid fever.....	6	Tuberculosis.....	23
Typhus fever.....	1	Whooping cough.....	67
Whooping cough.....	71	Scattering:	
		Chicken pox.....	63
UTAH		Diphtheria.....	17
Chicken pox.....	42	German measles.....	101
Diphtheria.....	13	Influenza.....	29
German measles.....	8	Measles.....	1,207
Measles.....	65	Mumps.....	81
Mumps.....	25	Pneumonia.....	24
Pneumonia.....	3	Scarlet fever.....	90
Scarlet fever.....	5	Smallpox.....	3
Smallpox.....	2	Tuberculosis.....	43
Tuberculosis.....	1	Typhoid fever.....	4
Whooping cough.....	201	Whooping cough.....	87
VERMONT			
Chicken pox.....	13	WYOMING	
Measles.....	54	Anthrax—Sheridan County.....	1
Mumps.....	9	Chicken pox.....	1
Polioomyelitis.....	1	Diphtheria.....	1
Scarlet fever.....	2	German measles.....	1
Whooping cough.....	13	Influenza.....	1
		Measles.....	9
VIRGINIA		Pneumonia.....	1
Polioomyelitis—Chesterfield County.....	1	Rocky Mountain spotted fever:	
Smallpox.....	5	Converse County.....	1
		Johnson County.....	1
WASHINGTON		Sheridan County.....	1
Cerebrospinal meningitis:		Whooping cough.....	5
Aberdeen.....	6		
Seattle.....	1		
Spokane.....	1		

## Report for Week Ended May 22, 1926

NORTH DAKOTA		NORTH DAKOTA—continued	
	Cases		Cases
Chicken pox.....	17	Rocky Mountain spotted fever.....	1
Diphtheria.....	6	Scarlet fever.....	43
German measles.....	36	Smallpox.....	2
Lethargic encephalitis.....	1	Trachoma.....	2
Measles.....	42	Tuberculosis.....	5
Mumps.....	14	Typhoid fever.....	1
Pneumonia.....	4	Whooping cough.....	5

## Report for Week Ended May 15, 1926

NORTH DAKOTA		NORTH DAKOTA—continued	
	Cases		Cases
Chicken pox.....	10	Pneumonia.....	12
Diphtheria.....	12	Poliomyelitis.....	1
German measles.....	128	Scarlet fever.....	79
Lethargic encephalitis.....	1	Tuberculosis.....	3
Measles.....	34	Whooping cough.....	3
Mumps.....	28		

## SUMMARY OF MONTHLY REPORTS FROM STATES

The following summary of monthly State reports is published weekly and covers only those States from which reports are received during the current week:

State	Cerebro-spinal meningitis	Diphtheria	Influenza	Malaria	Measles	Pellagra	Poliomyelitis	Scarlet fever	Smallpox	Typhoid fever
<i>January, 1926</i>										
Pennsylvania.....	5	899		0	10,337	0	3	2,486	2	106
<i>February, 1926</i>										
Pennsylvania.....	6	788		1	12,469	0	4	2,390	7	119
<i>April, 1926</i>										
Alabama.....	4	30	1,682	35	904	48	2	63	175	34
Arkansas.....	0	5	945	168	143	41	0	27	30	12
Illinois.....	10	326	628	0	4,299	0	3	1,507	164	44
Kansas.....	7	66	69	0	2,704	0	0	269	50	9
Maine.....	1	11	1,678	0	1,342	0	0	86	0	18
Maryland.....	5	89	229	3	2,609	0	1	207	0	30
Michigan.....		303	166	0	6,532		2	1,401	28	18
Minnesota.....	4	272	12		2,389		0	1,434	20	14
Mississippi.....	3	66	6,360	3,200	1,942	652	2	37	106	59
New York.....	35	959	4,018	4	15,052		9	1,792	14	71
North Carolina.....	1	81			1,166		0	106	152	13
Ohio.....	3	370	1,251	1	11,250	0	2	1,419	253	21
Oklahoma <sup>1</sup> .....	4	50	2,717	64	264	19	0	156	128	28
Rhode Island.....	0	18	45		862	0	0	35	0	3
South Carolina.....	0	107	7,517	391	130	207	20	31	106	32
Washington.....	25	58	52		284			322	283	25
West Virginia.....	0	55	1,312		1,956	0	0	204	73	18

<sup>1</sup> Exclusive of Oklahoma City and Tulsa.

## PLAGUE-ERADICATIVE MEASURES IN LOS ANGELES, CALIF.

The following items were taken from the reports of plague-eradication measures from Los Angeles, Calif.:

Week ended May 22, 1926:

Number of rats trapped.....	511
Number of rats found to be plague infected.....	0
Number of squirrels examined.....	668
Number of squirrels found to be plague infected.....	0
Number of mice trapped.....	412
Number of mice found to be plague infected.....	0

Date of discovery of last plague-infected rodent, Nov. 6, 1925.

Date of last human case, Jan. 15, 1925.

## GENERAL CURRENT SUMMARY AND WEEKLY REPORTS FROM CITIES

*Diphtheria*.—For the week ended May 15, 1926, 36 States reported 973 cases of diphtheria. For the week ended May 16, 1925, the same States reported 1,263 cases of this disease. Ninety-nine cities, situated in all parts of the country and having an aggregate population of nearly 30,000,000, reported 701 cases of diphtheria for the week ended May 15, 1926. Last year for the corresponding week they reported 897 cases. The estimated expectancy for these cities was 894 cases. The estimated expectancy is based on the experience of the last nine years, excluding epidemics.

*Measles*.—Thirty-three States reported 17,929 cases of measles for the week ended May 15, 1926, and 5,172 cases of this disease for the week ended May 16, 1925. Ninety-nine cities reported 8,936 cases of measles for the week this year, and 3,423 cases last year.

*Poliomyelitis*.—The health officers of 37 States reported 6 cases of poliomyelitis for the week ended May 15, 1926. The same States reported 18 cases for the week ended May 16, 1925.

*Scarlet fever*.—Scarlet fever was reported for the week as follows: Thirty-six States—this year, 3,402 cases; last year, 3,402 cases; 99 cities—this year, 1,877 cases; last year, 1,866 cases; estimated expectancy, 1,084 cases.

*Smallpox*.—For the week ended May 15, 1926, 37 States reported 667 cases of smallpox. Last year for the corresponding week they reported 808 cases. Ninety-nine cities reported smallpox for the week as follows: 1926, 147 cases; 1925, 251 cases; estimated expectancy, 117 cases. Three deaths from smallpox were reported by these cities for the week this year—1 at Omaha, Nebr., and 2 at Los Angeles, Calif.

*Typhoid fever*.—Two hundred and seven cases of typhoid fever were reported for the week ended May 15, 1926, by 35 States. For the corresponding week of 1925, the same States reported 270 cases of this disease. Ninety-nine cities reported 44 cases of typhoid fever for the week this year and 74 cases for the corresponding week last year. The estimated expectancy for these cities was 58 cases.

*Influenza and pneumonia*.—Deaths from influenza and pneumonia were reported for the week by 94 cities with a population of nearly 29,300,000, as follows: 1926, 935 deaths; 1925, 755.

*City reports for week ended May 15, 1926*

The "estimated expectancy" given for diphtheria, poliomyelitis, scarlet fever, smallpox, and typhoid fever, is the result of an attempt to ascertain from previous occurrences how many cases of the disease under consideration may be expected to occur during a certain week in the absence of epidemics. It is based on reports to the Public Health Service during the past nine years. It is in most instances the median number of cases reported in the corresponding week of the preceding years. When the reports include several epidemics or when for other reasons the median is unsatisfactory, the epidemic periods are excluded and the estimated expectancy is the mean number of cases reported for the week during non-epidemic years.

If reports have not been received for the full nine years, data are used for as many years as possible, but no year earlier than 1917 is included. In obtaining the estimated expectancy the figures are smoothed when necessary to avoid abrupt deviations from the usual trend. For some of the diseases given in the table the available data were not sufficient to make it practicable to compute the estimated expectancy.

Division, State, and city	Population July 1, 1925, estimated	Chicken pox, cases re-ported	Diphtheria		Influenza		Meas-les, cases re-ported	Mumps, cases re-ported	Pneu-monia, deaths re-ported
			Cases, esti-mated expect-ancy	Cases re-ported	Cases re-ported	Deaths re-ported			
NEW ENGLAND									
Maine:									
Portland.....	75,333	1	1	1	0	0	152	3	2
New Hampshire:									
Concord.....	22,546	0	0	0	0	0	0	0	2
Manchester.....	83,097	0	1	0	0	0	10	0	3
Vermont:									
Barre.....	10,008	0	0	0	0	0	0	1	0
Burlington.....	24,080	1	0	0	0	0	2	0	0
Massachusetts:									
Boston.....	779,620	22	52	15	6	1	158	42	29
Fall River.....	128,993	0	3	2	0	0	18	0	5
Springfield.....	142,065	11	3	0	0	0	22	0	2
Worcester.....	190,757	0	4	2	0	0	6	0	9
Rhode Island:									
Pawtucket.....	69,760	0	0	2	0	0	7	0	3
Providence.....	267,918	0	10	8	0	0	57	6	5
Connecticut:									
Bridgeport.....	(1)	0	5	3	0	1	4	0	5
Hartford.....	160,197	1	6	4	3	0	12	0	8
New Haven.....	178,927	17	3	0	0	0	71	1	0
MIDDLE ATLANTIC									
New York:									
Buffalo.....	538,016	27	10	6	0	0	23	0	33
New York.....	5,873,356	119	260	138	55	14	1,634	82	188
Rochester.....	318,786	10	7	12	3	1	86	0	12
Syracuse.....	182,003	3	6	0	0	0	225	19	2
New Jersey:									
Camden.....	126,642	0	4	5	1	1	38	0	1
Newark.....	452,513	54	15	18	2	0	227	14	11
Trenton.....	132,620	2	3	2	0	0	48	1	4
Pennsylvania:									
Philadelphia.....	1,079,364	75	66	75	-----	13	515	6	56
Pittsburgh.....	631,563	21	17	14	-----	6	160	2	24
Reading.....	112,707	12	3	1	-----	0	42	0	1
EAST NORTH CENTRAL									
Ohio:									
Cincinnati.....	409,333	7	7	5	0	3	283	15	18
Cleveland.....	936,485	20	19	25	2	2	70	1	23
Columbus.....	279,836	4	3	13	0	0	155	0	8
Toledo.....	287,380	45	5	0	0	0	361	0	9
Indiana:									
Fort Wayne.....	97,846	6	2	1	0	0	53	0	2
Indianapolis.....	358,619	10	5	3	0	1	103	0	19
South Bend.....	80,091	3	0	1	0	0	40	0	10
Terre Haute.....	71,071	2	1	0	0	0	23	0	2
Illinois:									
Chicago.....	2,905,239	147	92	35	11	9	205	22	63
Peoria.....	81,564	4	0	0	0	0	0	5	3
Springfield.....	63,923	6	0	1	2	1	31	1	1
Michigan:									
Detroit.....	1,245,824	33	41	47	2	5	132	10	35
Flint.....	130,316	11	4	1	0	0	147	0	8
Grand Rapids.....	153,098	3	3	0	0	1	49	0	3

<sup>1</sup> No estimate made.

## City reports for week ended May 15, 1926—Continued

Division, State, and city	Population July 1, 1925, estimated	Chicken pox, cases reported	Diphtheria		Influenza		Measles, cases reported	Mumps, cases reported	Pneumonia, deaths reported
			Cases, estimated expectancy	Cases reported	Cases reported	Deaths reported			
EAST NORTH CENTRAL—continued									
Wisconsin:									
Kenosha.....	50,891	11	1	0	0	0	3	0	0
Madison.....	46,385	5	0	2	0	0	236	0	2
Milwaukee.....	509,192	86	10	5	2	3	289	45	19
Racine.....	67,707	1	1	2	1	1	159	8	1
Superior.....	39,671	0	1	0	0	0	38	0	2
WEST NORTH CENTRAL									
Minnesota:									
Duluth.....	110,502	9	1	0	0	0	47	0	1
Minneapolis.....	425,435	55	16	27	0	0	185	0	7
St. Paul.....	246,001	29	16	9	0	2	295	3	6
Iowa:									
Davenport.....	52,469	4	1	0	0	—	15	0	—
Des Moines.....	141,441	0	3	0	0	—	1	0	—
Sioux City.....	76,411	4	1	0	0	—	0	1	—
Waterloo.....	36,771	5	0	0	0	—	59	0	—
Missouri:									
Kansas City.....	367,481	—	6	—	—	—	—	—	—
St. Joseph.....	78,342	2	1	0	0	0	9	0	4
St. Louis.....	821,543	24	41	60	0	1	1,147	9	—
North Dakota:									
Fargo.....	26,403	0	0	0	0	0	0	16	0
Grand Forks.....	14,811	—	0	—	—	—	—	—	—
South Dakota:									
Aberdeen.....	15,036	3	0	0	0	—	21	12	—
Sioux Falls.....	30,127	0	0	0	0	0	4	0	0
Nebraska:									
Lincoln.....	60,941	9	2	1	0	1	1	1	1
Omaha.....	211,768	21	3	0	0	0	129	1	11
Kansas:									
Topeka.....	55,411	33	1	2	0	0	7	0	0
Wichita.....	88,367	0	1	0	0	0	34	0	3
SOUTH ATLANTIC									
Delaware:									
Wilmington.....	122,049	2	1	0	0	0	5	0	2
Maryland:									
Baltimore.....	796,296	61	21	11	3	3	80	172	42
Cumberland.....	33,741	0	1	0	1	1	21	0	0
Frederick.....	12,035	0	0	0	0	0	7	0	0
District of Columbia:									
Washington.....	497,906	22	10	15	1	1	427	0	21
Virginia:									
Lynchburg.....	30,395	12	1	2	0	0	73	1	0
Norfolk.....	(1)	36	1	0	1	0	12	1	4
Richmond.....	186,403	6	2	0	0	0	62	3	4
Roanoke.....	58,208	2	1	0	0	0	70	0	1
West Virginia:									
Charleston.....	49,010	1	1	0	4	2	19	0	0
Huntington.....	63,485	0	0	6	0	1	0	0	0
Wheeling.....	56,208	6	1	2	0	0	177	0	1
North Carolina:									
Raleigh.....	30,371	5	1	1	0	0	0	0	5
Wilmington.....	37,061	9	0	1	0	0	0	1	1
Winston-Salem.....	60,031	0	0	0	0	0	9	0	3
South Carolina:									
Charleston.....	73,125	8	0	0	14	0	13	2	1
Columbia.....	41,225	5	0	1	0	0	0	0	0
Greenville.....	27,311	0	0	0	0	0	1	1	0
Georgia:									
Atlanta.....	(1)	5	1	7	11	1	16	0	9
Brunswick.....	16,809	3	0	0	0	0	1	0	0
Savannah.....	93,134	1	0	0	0	0	1	1	0
Florida:									
Miami.....	69,754	2	—	6	0	0	9	3	0
St. Petersburg.....	26,847	—	0	—	—	0	—	—	2
Tampa.....	94,743	3	1	1	0	1	5	1	3

1 No estimate made.

## City reports for week ended May 15, 1926—Continued

Division, State, and city	Population July 1, 1925, estimated	Chicken pox, cases reported	Diphtheria		Influenza		Measles, cases reported	Mumps, cases reported	Pneumonia, deaths reported
			Cases, estimated expectancy	Cases reported	Cases reported	Deaths reported			
EAST SOUTH CENTRAL									
Kentucky:									
Covington.....	58,300	0	1	0	0	0	20	0	2
Louisville.....	305,935	1	4	1	1	0	142	1	15
Tennessee:									
Memphis.....	174,533	7	2	3	0	1	369	6	5
Nashville.....	136,220	2	1	1	0	4	15	0	7
Alabama:									
Birmingham.....	205,670	16	1	5	4	1	100	1	6
Mobile.....	65,955	2	0	0	0	0	0	0	0
Montgomery.....	46,481	1	1	0	0	0	21	6	0
WEST SOUTH CENTRAL									
Arkansas:									
Fort Smith.....	31,643	3	1	0	0	—	1	0	—
Little Rock.....	74,216	0	0	1	0	0	25	0	2
Louisiana:									
New Orleans.....	414,493	2	6	3	0	4	2	0	13
Shreveport.....	57,837	0	1	1	0	0	1	10	2
Oklahoma:									
Oklahoma City.....	(1)	1	1	1	4	0	3	0	2
Texas:									
Dallas.....	194,450	17	3	8	0	1	1	1	3
Galveston.....	43,375	0	0	0	0	0	0	0	1
Houston.....	164,954	0	2	4	0	0	0	0	1
San Antonio.....	193,069	2	1	2	0	1	6	0	7
MOUNTAIN									
Montana:									
Billings.....	17,971	1	1	0	0	1	0	0	0
Great Falls.....	29,833	9	1	0	0	0	67	0	1
Helena.....	12,037	0	0	0	0	0	0	0	1
Missoula.....	12,668	3	0	0	0	0	1	4	0
Idaho:									
Boise.....	23,042	0	0	0	0	0	6	0	0
Colorado:									
Denver.....	280,911	29	10	10	—	1	45	1	3
Pueblo.....	43,787	14	1	4	0	0	20	0	2
New Mexico:									
Albuquerque.....	21,000	1	1	2	0	0	3	4	0
Arizona:									
Phoenix.....	38,669	0	0	0	0	1	0	0	3
Utah:									
Salt Lake City.....	130,948	33	3	6	0	0	13	9	3
Nevada:									
Reno.....	12,665	0	0	0	0	0	1	2	0
PACIFIC									
Washington:									
Seattle.....	(1)	48	5	1	0	—	56	33	—
Spokane.....	108,897	8	3	0	0	—	1	0	—
Tacoma.....	104,455	1	1	1	0	0	6	2	2
Oregon:									
Portland.....	282,383	13	4	4	0	2	15	4	2
California:									
Los Angeles.....	(1)	55	34	49	10	1	12	11	19
Sacramento.....	72,260	3	2	3	0	0	0	4	1
San Francisco.....	557,530	47	20	11	2	0	177	12	4

1 No estimate made.



## City reports for week ended May 15, 1926—Continued

Division, State, and city	Scarlet fever		Smallpox			Tuber- culo- sis, deaths re- ported	Typhoid fever			Whoop- ing cough, cases re- ported	Deaths, all causes
	Cases, esti- mated expect- ancy	Cases re- ported	Cases, esti- mated expect- ancy	Cases re- ported	Deaths re- ported		Cases, esti- mated expect- ancy	Cases re- ported	Deaths re- ported		
NEW ENGLAND											
Maine:											
Portland.....	2	3	0	0	0	3	1	0	0	6	21
New Hampshire:											
Concord.....	1	2	0	0	0	2	0	0	0	0	18
Manchester.....	2	10	0	0	0	0	1	0	0	0	19
Vermont:											
Barre.....	0	0	0	0	0	1	0	0	0	0	3
Burlington.....	0	1	0	0	0	1	1	0	0	0	2
Massachusetts:											
Boston.....	53	66	0	0	0	16	2	0	0	78	244
Fall River.....	4	1	0	0	0	2	0	0	0	5	30
Springfield.....	6	8	0	0	0	0	0	0	0	1	45
Worcester.....	8	5	0	0	0	7	0	0	0	27	53
Rhode Island:											
Pawtucket.....	1	3	0	0	0	0	0	0	0	0	16
Providence.....	10	5	0	0	0	2	0	0	0	6	59
Connecticut:											
Bridgeport.....	6	20	0	0	0	7	0	0	0	1	39
Hartford.....	4	3	0	0	0	2	0	0	1	0	43
New Haven.....	5	16	0	0	0	0	0	0	0	15	7
MIDDLE ATLANTIC											
New York:											
Buffalo.....	18	13	0	0	0	9	1	2	0	33	142
New York.....	255	269	0	0	0	195	11	13	1	63	1,441
Rochester.....	15	15	0	0	0	3	1	1	0	10	85
Syracuse.....	12	0	0	0	0	0	0	0	0	46	40
New Jersey:											
Camden.....	4	7	0	0	0	5	0	0	0	4	35
Newark.....	20	22	0	0	0	6	0	3	0	20	125
Trenton.....	2	3	0	0	0	8	0	0	0	5	35
Pennsylvania:											
Philadelphia.....	77	123	0	0	0	28	5	2	1	40	493
Pittsburgh.....	25	35	0	1	0	15	1	0	0	101	163
Reading.....	2	8	0	0	0	2	0	0	0	9	38
EAST NORTH CENTRAL											
Ohio:											
Cincinnati.....	14	11	2	4	0	13	1	1	0	22	150
Cleveland.....	21	102	2	0	0	18	1	0	0	123	218
Columbus.....	8	21	2	0	0	4	0	0	0	6	77
Toledo.....	14	10	4	0	0	11	0	1	0	40	80
Indiana:											
Fort Wayne.....	2	16	3	1	0	0	0	0	0	3	20
Indianapolis.....	13	26	8	19	0	6	0	3	0	39	119
South Bend.....	4	6	1	0	0	2	0	0	0	8	31
Terre Haute.....	3	3	1	0	0	0	0	0	0	3	18
Illinois:											
Chicago.....	111	156	2	4	0	65	3	0	0	40	741
Peoria.....	3	3	1	0	0	2	0	0	0	7	24
Springfield.....	1	4	1	0	0	0	1	1	0	16	12
Michigan:											
Detroit.....	79	113	3	1	0	30	2	1	0	56	332
Flint.....	5	22	2	0	0	1	0	0	0	12	29
Grand Rapids.....	6	19	1	0	0	0	0	0	0	18	39
Wisconsin:											
Kenosha.....	2	4	0	0	0	0	1	0	0	6	10
Madison.....	2	4	0	0	0	0	0	0	0	2	11
Milwaukee.....	25	18	5	0	0	11	1	0	0	52	117
Racine.....	5	0	1	0	0	1	0	0	0	24	9
Superior.....	2	1	2	0	0	0	1	1	0	0	9
WEST NORTH CENTRAL											
Minnesota:											
Duluth.....	4	49	1	0	0	1	1	0	0	8	31
Minneapolis.....	30	67	8	0	0	5	1	1	0	3	112
St. Paul.....	22	29	4	0	0	2	0	0	0	37	60

1 Pulmonary tuberculosis only.

## City reports for week ended May 15, 1926—Continued

Division, State, and city	Scarlet fever		Smallpox			Tuber- culosis, deaths re- ported	Typhoid fever			Whoop- ing cough, cases re- ported	Deaths, all causes
	Cases, esti- mated expect- ancy	Cases re- ported	Cases, esti- mated expect- ancy	Cases re- ported	Deaths re- ported		Cases, esti- mated expect- ancy	Cases re- ported	Deaths re- ported		
WEST NORTH CEN- TRAL—continued											
Iowa:											
Davenport	1	1	4	0			0	0		0	
Des Moines	8	6	2	2			0	0		0	
Sioux City	3	7	1	4			0	0		7	
Waterloo	1	1	0	0			0	0		6	
Missouri:											
Kansas City	9		3				0				
St. Joseph	2	3	0	0	0	2	0	0	0	0	
St. Louis	30	158	4	2	0	7	2	0	0	48	209
North Dakota:											
Fargo	1	6	0	0	0	0	0	0	0	0	1
Grand Forks	1		0				0				
South Dakota:											
Aberdeen	1	15	0	0			0	0		13	0
Sioux Falls	1	5	0	0	0	0	0	0	0	0	2
Nebraska:											
Lincoln	2	1	0	1	0	0	0	0	0	24	13
Omaha	5	77	6	12	1	2	0	0	0	0	61
Kansas:											
Topeka	2	6	0	0	0	1	0	0	0	7	13
Wichita	2	2	3	0	0	0	0	0	0	12	25
SOUTH ATLANTIC											
Delaware:											
Wilmington	4	8	0	0	0	2	0	0	0	2	27
Maryland:											
Baltimore	26	44	0	0	0	26	3	1	0	62	239
Cumberland	1	2	0	0	0	1	1	0	0	3	10
Frederick	1	0	0	0	0	0	0	0	0	0	3
District of Colum- bia:											
Washington	20	36	2	0	0	10	1	0	0	33	151
Virginia:											
Lynchburg	0	4	0	0	0	0	0	0	0	3	6
Norfolk	1	7	0	1	0	1	0	0	0	9	
Richmond	3	4	0	0	0	1	1	0	0	2	41
Rosnoke	1	0	1	4	0	1	0	0	0	0	14
West Virginia:											
Charleston	1	0	1	0	0	1	0	0	0	2	25
Huntington	1	1	0	0	0	5	0	0	0	0	13
Wheeling	2	3	0	0	0	1	0	1	0	0	27
North Carolina:											
Raleigh	0	1	0	1	0	0	0	0	0	15	20
Wilmington	1	0	0	0	0	2	0	0	0	0	12
Winston-Salem	0	1	4	1	0	4	0	0	0	0	24
South Carolina:											
Charleston	1	0	0	1	0	1	1	0	0	2	20
Columbia	0	0	1	0	0	0	0	0	0	1	
Greenville	0	1	0	1	0	1	1	0	0	4	8
Georgia:											
Atlanta	4	6	5	1	0	4	1	0	1	11	75
Brunswick	0	0	0	0	0	0	1	0	0	0	4
Savannah	0	0	0	0	0	1	0	0	0	0	29
Florida:											
Miami		0		3	0	2		2	0	4	34
St. Petersburg	0		0		0	1	0		0		23
Tampa	0	1	0	11	0	1	1	0	1	0	43
EAST SOUTH CENTRAL											
Kentucky:											
Covington	1	3	0	3	0	2	0	0	0	2	19
Louisville	5	16	0	2	0	7	1	0	1	1	86
Tennessee:											
Memphis	4	18	3	1	0	4	1	0	0	1	59
Nashville	2	1	1	0	0	0	1	0	0	13	50
Alabama:											
Birmingham	2	1	7	11	0	2	1	0	0	26	66
Mobile	1	0	1	1	0	1	1	0	0	0	14
Montgomery	0	0	1	5	0	0	0	0	0	0	8

## City reports for week ended May 15, 1926—Continued

Division, State, and city	Scarlet fever		Smallpox			Tuber- culo- sis, deaths re- ported	Typhoid fever			Whoop- ing cough, cases re- ported	Deaths, all causes
	Cases, esti- mated expect- ancy	Cases re- ported	Cases, esti- mated expect- ancy	Cases re- ported	Deaths re- ported		Cases, esti- mated expect- ancy	Cases re- ported	Deaths re- ported		
WEST SOUTH CENTRAL											
Arkansas:											
Fort Smith.....	1	0	0	0	—	—	0	0	—	8	—
Little Rock.....	1	8	1	0	0	0	0	0	0	1	—
Louisiana:											
New Orleans.....	3	21	2	5	0	11	3	7	1	3	135
Shreveport.....	0	0	2	1	0	4	0	0	0	4	37
Oklahoma:											
Oklahoma City.....	1	0	4	1	0	0	0	1	0	0	22
Texas:											
Dallas.....	2	6	3	8	0	2	0	0	0	5	34
Galveston.....	0	0	1	2	0	6	1	1	0	0	11
Houston.....	1	1	0	11	0	0	0	2	0	0	33
San Antonio.....	0	0	0	0	0	10	0	0	0	0	59
MOUNTAIN											
Montana:											
Billings.....	1	0	1	0	0	0	0	0	0	1	3
Great Falls.....	1	0	2	0	0	0	0	0	0	4	9
Helena.....	1	0	0	0	0	0	0	0	0	0	4
Missoula.....	1	1	0	0	0	0	0	0	0	0	5
Idaho:											
Boise.....	1	1	0	4	0	0	0	0	0	0	5
Colorado:											
Denver.....	11	21	2	1	0	12	0	0	0	36	86
Pueblo.....	1	1	0	0	0	0	0	1	1	9	11
New Mexico:											
Albuquerque.....	0	5	0	0	0	4	0	0	0	13	11
Arizona:											
Phoenix.....	1	1	0	0	0	8	0	0	0	0	27
Utah:											
Salt Lake City.....	2	3	0	1	0	2	0	0	0	60	37
Nevada:											
Reno.....	0	0	1	0	0	0	0	0	0	0	3
PACIFIC											
Washington:											
Seattle.....	8	21	4	5	—	—	0	0	—	9	—
Spokane.....	3	8	5	0	—	—	0	0	—	4	—
Tacoma.....	2	2	1	3	0	2	0	0	0	0	29
Oregon:											
Portland.....	7	18	8	3	0	3	0	0	0	0	52
California:											
Los Angeles.....	17	33	3	5	2	25	2	0	0	4	231
Sacramento.....	2	4	0	1	0	3	0	2	1	2	25
San Francisco.....	14	28	2	11	0	6	1	1	0	4	118

## City reports for week ended May 15, 1926—Continued.

Division, State and city	Cerebrospinal meningitis		Lethargic encephalitis		Pellagra		Poliomyelitis (infantile paralysis)		
	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases, estimated expectancy	Cases	Deaths
<b>NEW ENGLAND</b>									
Massachusetts:									
Boston.....	0	0	2	0	0	0	0	1	1
Springfield.....	0	0	2	1	0	0	0	0	0
Rhode Island:									
Providence.....	0	0	0	1	0	0	0	0	0
Connecticut:									
Bridgeport.....	0	0	1	1	0	0	0	0	0
New Haven.....	1	0	0	0	0	0	0	0	0
<b>MIDDLE ATLANTIC</b>									
New York:									
New York.....	7	4	6	4	0	0	1	1	0
New Jersey:									
Newark.....	1	0	1	0	0	0	0	0	0
Pennsylvania:									
Philadelphia.....	0	0	1	1	0	0	0	0	0
<b>EAST NORTH CENTRAL</b>									
Ohio:									
Cincinnati.....	0	0	0	0	0	1	0	0	0
Illinois:									
Chicago.....	1	2	0	0	0	0	0	0	0
Michigan:									
Detroit.....	0	0	0	1	0	0	0	0	0
Wisconsin:									
Racine.....	0	0	1	1	0	0	0	0	0
<b>WEST NORTH CENTRAL</b>									
Missouri:									
St. Louis.....	1	0	0	0	0	0	0	0	0
Nebraska:									
Omaha.....	0	0	0	0	1	1	0	0	0
<b>SOUTH ATLANTIC</b>									
Maryland:									
Baltimore.....	1	1	0	0	0	0	0	0	0
Virginia:									
Richmond.....	0	0	0	0	0	0	0	1	1
North Carolina:									
Raleigh.....	0	1	0	0	0	0	0	0	0
Florida:									
Tampa.....	1	0	0	0	0	0	0	0	0
<b>EAST SOUTH CENTRAL</b>									
Alabama:									
Birmingham.....	0	0	0	1	1	0	0	0	0
<b>WEST SOUTH CENTRAL</b>									
Arkansas:									
Little Rock.....	0	0	0	0	1	0	0	0	0
Texas:									
Dallas.....	0	0	0	0	0	2	0	0	0
Houston.....	1	0	0	0	0	1	0	0	0
<b>PACIFIC</b>									
Washington:									
Spokane.....	2		0		0		0	0	
Tacoma.....	1	0	0	0	0	0	0	0	0
Oregon:									
Portland.....	0	0	0	1	0	0	0	0	0
California:									
Los Angeles.....	3	0	2	0	1	0	1	0	0
San Francisco.....	0	0	0	0	1	0	0	0	0

The following table gives the rates per 100,000 population for 103 cities for the five-week period ended May 15, 1926, compared with those for a like period ended May 16, 1925. The population figures used in computing the rates are approximate estimates as of July 1, 1925 and 1926, respectively, authoritative figures for many of the cities not being available. The 103 cities reporting cases had an estimated aggregate population of nearly 30,000,000 in 1925 and nearly 30,500,000 in 1926. The 96 cities reporting deaths had more than 29,250,000 estimated population in 1925 and more than 29,750,000 in 1926. The number of cities included in each group and the estimated aggregate populations are shown in a separate table below.

*Summary of weekly reports from cities, April 11 to May 15, 1926—Annual rates per 100,000 population—Compared with rates for the corresponding period of 1925<sup>1</sup>*

## DIPHTHERIA CASE RATES

	Week ended									
	Apr. 18, 1925	Apr. 17, 1926	Apr. 25, 1925	Apr. 24, 1926	May 2, 1925	May 1, 1926	May 9, 1925	May 8, 1926	May 16, 1925	May 15, 1926
103 cities.....	155	110	155	118	152	110	<sup>2</sup> 152	<sup>3</sup> 115	<sup>4</sup> 158	<sup>5</sup> 122
New England.....	125	47	130	73	122	83	105	106	149	87
Middle Atlantic.....	227	118	217	162	212	114	<sup>6</sup> 211	<sup>7</sup> 126	237	135
East North Central.....	103	86	106	87	102	97	106	89	<sup>8</sup> 102	96
West North Central.....	163	241	181	178	195	200	260	<sup>9</sup> 195	205	<sup>10</sup> 228
South Atlantic.....	96	90	102	68	98	68	98	75	81	77
East South Central.....	42	47	37	26	37	73	11	62	32	52
West South Central.....	70	30	75	47	66	56	62	60	53	82
Mountain.....	231	191	259	82	111	118	102	146	148	182
Pacific.....	166	135	157	146	196	154	<sup>11</sup> 117	<sup>12</sup> 165	<sup>13</sup> 132	175

## MEASLES CASE RATES

103 cities.....	564	1,769	620	1,790	559	1,705	<sup>2</sup> 603	<sup>3</sup> 1,712	<sup>4</sup> 599	<sup>5</sup> 1,557
New England.....	884	1,813	1,174	1,606	968	1,529	949	1,714	1,145	1,198
Middle Atlantic.....	811	1,699	779	1,593	731	1,417	793	<sup>6</sup> 1,410	765	1,198
East North Central.....	681	1,409	833	1,457	703	1,486	830	1,454	<sup>7</sup> 705	1,371
West North Central.....	88	3,309	93	4,079	76	3,988	169	<sup>8</sup> 4,458	76	<sup>9</sup> 4,451
South Atlantic.....	242	2,943	278	2,538	288	2,528	227	1,942	311	1,083
East South Central.....	69	2,781	173	3,445	184	2,885	315	3,248	152	3,401
West South Central.....	62	133	35	103	26	159	31	125	13	155
Mountain.....	269	528	213	1,074	518	865	170	683	55	1,393
Pacific.....	146	376	193	504	155	669	<sup>10</sup> 612	<sup>11</sup> 640	<sup>12</sup> 170	679

## SCARLET FEVER CASE RATES

103 cities.....	320	307	438	283	267	202	<sup>2</sup> 311	<sup>3</sup> 294	<sup>4</sup> 338	<sup>5</sup> 32
New England.....	338	373	393	222	415	281	460	222	345	31
Middle Atlantic.....	341	187	235	201	322	221	318	<sup>6</sup> 217	330	24
East North Central.....	376	343	410	287	302	289	341	<sup>7</sup> 312	368	33
West North Central.....	631	895	671	883	602	867	590	<sup>8</sup> 1043	705	<sup>9</sup> 665
South Atlantic.....	157	182	165	100	125	213	100	177	180	22
East South Central.....	210	156	230	228	242	171	242	187	299	20
West South Central.....	57	133	114	172	106	146	84	176	70	14
Mountain.....	305	173	383	209	324	218	268	137	342	24
Pacific.....	138	340	141	262	119	205	<sup>10</sup> 144	<sup>11</sup> 197	<sup>12</sup> 187	25

<sup>1</sup> The figures given in this table are rates per 100,000 population, annual basis, and not the number of cases reported. Populations used are estimated as of July 1, 1925 and 1926, respectively.

<sup>2</sup> Spokane, Wash., not included.

<sup>3</sup> Trenton, N. J., Grand Forks, N. Dak., and Tacoma, Wash., not included.

<sup>4</sup> Superior, Wis., and Tacoma, Wash., not included.

<sup>5</sup> Kansas City, Mo., and Grand Forks, N. Dak., not included.

<sup>6</sup> Trenton, N. J., not included.

<sup>7</sup> Superior, Wis., not included.

<sup>8</sup> Grand Forks, N. Dak., not included.

<sup>9</sup> Tacoma, Wash., not included.

Summary of weekly reports from cities, April 11 to May 15, 1926—Annual rates per 100 000 population—Compared with rates for the corresponding period of 1925—Continued

## SMALLPOX CASE RATES

	Week ended									
	Apr. 18, 1925	Apr. 17, 1926	Apr. 25, 1925	Apr. 24, 1926	May 2, 1925	May 1, 1926	May 9, 1925	May 8, 1926	May 16, 1925	May 15, 1926
103 cities.....	46	26	60	31	48	26	<sup>2</sup> 45	<sup>2</sup> 26	<sup>4</sup> 44	<sup>5</sup> 26
New England.....	0	0	2	0	0	0	2	0	0	0
Middle Atlantic.....	18	0	12	0	3	0	6	<sup>6</sup> 0	7	0
East North Central.....	25	14	37	22	29	19	41	22	<sup>7</sup> 53	20
West North Central.....	82	44	96	44	72	32	58	<sup>5</sup> 58	76	<sup>4</sup> 42
South Atlantic.....	50	43	75	47	60	28	42	30	35	39
East South Central.....	362	52	420	99	399	99	347	73	173	119
West South Central.....	13	95	40	112	31	148	26	159	35	116
Mountain.....	9	27	28	46	9	36	46	36	28	55
Pacific.....	155	137	251	140	196	102	<sup>2</sup> 167	<sup>10</sup> 54	<sup>10</sup> 181	67

## TYPHOID FEVER CASE RATES

103 cities.....	11	7	16	8	17	9	<sup>2</sup> 13	<sup>3</sup> 7	<sup>4</sup> 13	<sup>5</sup> 8
New England.....	7	9	17	5	10	5	5	9	12	0
Middle Atlantic.....	11	7	14	8	22	6	13	<sup>6</sup> 0	10	10
East North Central.....	4	2	6	1	4	4	8	<sup>7</sup> 6	0	5
West North Central.....	2	4	6	6	12	6	2	<sup>8</sup> 0	0	<sup>6</sup> 2
South Atlantic.....	12	4	13	8	27	19	27	13	25	4
East South Central.....	32	0	74	26	42	21	42	16	58	0
West South Central.....	53	84	49	26	48	17	44	17	75	43
Mountain.....	37	9	28	0	0	15	0	0	0	9
Pacific.....	11	13	22	22	17	27	<sup>9</sup> 9	<sup>10</sup> 9	<sup>10</sup> 3	8

## INFLUENZA DEATH RATES

96 cities.....	26	53	29	38	21	33	14	<sup>11</sup> 25	<sup>10</sup> 14	<sup>9</sup> 16
New England.....	26	52	29	40	19	35	10	14	7	5
Middle Atlantic.....	24	39	17	34	14	27	10	<sup>12</sup> 22	12	17
East North Central.....	23	67	31	42	21	46	15	29	10	18
West North Central.....	49	23	47	31	30	17	11	13	11	<sup>7</sup> 7
South Atlantic.....	10	43	40	30	25	28	19	19	10	17
East South Central.....	74	47	79	104	47	99	47	99	74	31
West South Central.....	10	57	24	66	29	28	15	47	19	28
Mountain.....	37	46	74	46	46	9	18	18	55	18
Pacific.....	25	21	11	4	11	11	15	<sup>10</sup> 4	<sup>10</sup> 12	4

## PNEUMONIA DEATH RATES

96 cities.....	184	241	196	201	160	177	145	<sup>11</sup> 163	<sup>10</sup> 123	<sup>9</sup> 150
New England.....	199	303	180	234	144	210	156	170	129	165
Middle Atlantic.....	203	288	222	240	206	219	181	<sup>12</sup> 173	143	165
East North Central.....	178	232	199	191	138	152	123	178	118	147
West North Central.....	165	131	131	136	70	106	74	121	55	<sup>7</sup> 79
South Atlantic.....	217	207	180	205	180	177	143	169	129	182
East South Central.....	189	332	263	259	179	233	147	223	152	182
West South Central.....	92	194	150	137	121	161	131	118	106	137
Mountain.....	203	155	213	109	120	118	120	82	157	91
Pacific.....	87	117	131	71	113	75	109	<sup>10</sup> 84	<sup>10</sup> 75	92

<sup>2</sup> Spokane, Wash., not included.

<sup>3</sup> Trenton, N. J., Grand Forks, N. Dak., and Tacoma, Wash., not included.

<sup>4</sup> Superior, Wis., and Tacoma, Wash., not included.

<sup>5</sup> Kansas City, Mo., and Grand Forks, N. Dak., not included.

<sup>6</sup> Trenton, N. J., not included.

<sup>7</sup> Superior, Wis., not included.

<sup>8</sup> Grand Forks, N. Dak., not included.

<sup>9</sup> Kansas City, Mo., not included.

<sup>10</sup> Tacoma, Wash., not included.

<sup>11</sup> Trenton, N. J., and Tacoma, Wash., not included.

*Number of cities included in summary of weekly reports, and aggregate population of cities in each group, approximated as of July 1, 1925 and 1926, respectively*

Group of cities	Number of cities reporting cases	Number of cities reporting deaths	Aggregate population of cities reporting cases		Aggregate population of cities reporting deaths	
			1925	1926	1925	1926
Total .....	103	96	29,944,996	30,473,129	29,251,658	29,764,201
New England.....	12	12	2,176,124	2,206,124	2,176,124	2,206,124
Middle Atlantic.....	10	10	10,346,970	10,476,970	10,346,970	10,476,970
East North Central.....	16	16	7,481,656	7,655,436	7,481,656	7,655,436
West North Central.....	14	11	2,594,962	2,634,662	2,461,380	2,499,086
South Atlantic.....	21	21	2,716,070	2,776,070	2,716,070	2,776,070
East South Central.....	7	7	993,103	1,004,953	993,103	1,004,953
West South Central.....	8	6	1,184,057	1,212,057	1,078,198	1,103,695
Mountain.....	9	9	563,912	572,773	563,912	572,773
Pacific.....	6	4	1,888,142	1,934,084	1,434,245	1,469,144

# FOREIGN AND INSULAR

## THE FAR EAST

*Report for the week ended May 8, 1926.*—The following report for the week ended May 8, 1926, was transmitted by the Far Eastern Bureau of the health section of the League of Nation's Secretariat, located at Singapore, to the headquarters at Geneva.

Maritime towns	Plague		Cholera		Small-pox		Maritime towns	Plague		Cholera		Small-pox	
	Cases	Deaths	Cases	Deaths	Cases	Deaths		Cases	Deaths	Cases	Deaths	Cases	Deaths
British India:							Hongkong	0	0	0	0	2	1
Bombay		1		0	24	12	China:						
Madras		0		0	4	1	Shanghai	0	0	0	0		
Karachi		1		0	21	1	Amoy	2	1	0	0	3	
Iraq:							Japan:						
Basra	0	0	0	0	8	3	Yokohama	0	0	0	0	2	0
Straits Settlements:							Osaka	0	0	0	0	1	0
Singapore	1	1	0	0	0	0	Korea: Fusan	0	0	0	0	1	0
Siam: Bangkok	0	0	255	145	1	4	Kwantung:						
French Indo-China:							Dairen	0	0	0	0	22	5
Saigon and Cholon	0	0	34	22	0	0	Port Arthur	0	0	0	0	2	0

Telegraphic reports from the following maritime towns indicated that no case of plague, cholera, or smallpox was reported during the week:

### ASIA

*British India.*—Negapatam, Chittagong, Cochin, Tuticorin.

*Ceylon.*—Colombo.

*Federated Malay States.*—Port Swettenham.

*Straits Settlements.*—Penang.

*Dutch East Indies.*—Batavia, Surabaya, Samarang, Cheribon, Belawan Deli, Palembang, Sabang, Makassar, Menado, Banjarmasin, Balikpapan, Pontianak.

*Sarawak.*—Kuching.

*British North Borneo.*—Sandakan.

*Portuguese Timor.*—Dilly.

*Philippine Islands.*—Manila, Iloilo, Jolo, Cebu, Zamboanga.

*French Indo-China.*—Haiphong, Turane.

*Formosa.*—Keelung.

*Japan.*—Nagasaki, Simounoséki, Moji, Kobe, Niigata, Tsuruga, Hakodate.

*Korea.*—Chemulpo.

*South Manchuria.*—Antung, Mukden, Changchun.

### AUSTRALASIA AND OCEANIA

*Australia.*—Adelaide, Melbourne, Sydney, Brisbane, Rockhampton, Townsville, Port Darwin, Broome, Fremantle.

*New Guinea.*—Port Moresby.

*New Zealand.*—Auckland, Wellington, Christchurch, Invercargill, Dunedin.

*New Caledonia.*—Noumea.

*Hawaii.*—Honolulu.



## \* AFRICA

*Egypt.*—Alexandria, Port Said, Suez.

*Anglo-Egyptian Sudan.*—Port Sudan.

*Eritrea.*—Massaua.

*French Somaliland.*—Djibuti.

*British Somaliland.*—Berbera.

*Italian Somaliland.*—Mogadiscio.

*Kenya.*—Mombasa.

*Sechelles.*—Victoria.

*Mauritius.*—Port Louis.

*Portuguese East Africa.*—Mozambique, Loreneo Marques.

*Union of South Africa.*—Durban, East London, Port Elizabeth, Cape Town.

Reports had not been received in time for distribution from:

*British India.*—Calcuttta, Rangoon.

*Dutch East Indies.*—Padang, Tarakan.

*Zanzibar.*—Zanzibar.

*Madagascar.*—Tamatave, Majunga.

## CANADA

*Mortality from certain communicable diseases, Province of Quebec—January, 1926.*—During the month of January, 1926, deaths from certain communicable diseases were reported in the Province of Quebec, Canada, as follows: Diphtheria, 44; measles, 32; scarlet fever, 16; tuberculosis (pulmonary), 173; other forms of tuberculosis, 37; typhoid fever, 12; whooping cough, 32.

*General mortality.*—The total number of deaths from all causes, exclusive of stillbirths, was 2,955. Population, estimated, 2,570,000.

*Mortality from certain other diseases.*—During the month of January, 1926, 113 deaths from cancer and 324 deaths from diseases of the heart, were reported in the Province. Of these, 36 deaths from cancer and 89 of heart affections occurred at Montreal (population, 675,000), and at Quebec, 5 deaths from cancer and 20 from heart affections (population, 124,341).

## IRELAND (FREE STATE)

*Typhus fever—Cork District—May 2-8, 1926.*—During the week ended May 8, 1926, a case of typhus fever was reported in the urban district of Cork, Irish Free State, Ireland.

## UNION OF SOUTH AFRICA

*Plague—Cape Province—Orange Free State—April 4-10, 1926.*—During the week ended April 10, 1926, plague was reported in the Union of South Africa as follows: Cape Province—one fatal case, bubonic, in a native, occurring in Cradock District; Orange Free State—two native cases occurring in Hoopstad District.

*Typhus fever.*—During the same period typhus fever was reported in the Union of South Africa as follows: In Natal, one case at Port Shepstone and three cases at Durban (sporadic); outbreaks in Mount Currie and Tsolo Districts.

## YUGOSLAVIA

*Communicable diseases—February 22–March 21, 1926.*—During the period February 22 to March 21, 1926, communicable diseases were reported in Yugoslavia as follows:

Disease	Cases	Deaths	Disease	Cases	Deaths
Anthrax.....	20	3	Rabies.....	8	8
Cerebrospinal meningitis.....	28	2	Scarlet fever.....	488	104
Diphtheria and croup.....	157	32	Tetanus.....	14	9
Dysentery.....	19	-----	Typhoid fever.....	151	26
Lethargic encephalitis.....	2	1	Typhus fever.....	24	6
Measles.....	1,378	12	Whooping cough.....	315	10

## CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER

The reports contained in the following tables must not be considered as complete or final as regards either the lists of countries included or the figures for the particular countries for which reports are given.

Reports Received During Week Ended June 4 1926 <sup>1</sup>

## CHOLERA

Place	Date	Cases	Deaths	Remarks
India.....				Mar. 21–Apr. 3, 1926: Cases, 7,074; deaths, 3,962.
Calcutta.....	Mar. 28–Apr. 3.....	37	50	
Rangoon.....	Apr. 11–17.....	6	6	
Indo-China (French):.....				
Saigon.....	May 20.....			Present.
Siam:.....				
Bangkok.....	Apr. 4–10.....	102	61	

## PLAGUE

British East Africa:.....				
Uganda.....	Feb. 1–28.....	50	42	
China:.....				
Nanking.....	Apr. 11–24.....			Prevalent.
India:.....				Mar. 21–Apr. 3, 1926: Cases, 21,012; deaths, 16,627.
Bombay.....	Apr. 4–10.....	2	1	
Karachi.....	Apr. 18–24.....	4	1	
Madras (Presidency).....	Mar. 27–Apr. 3.....	38	22	
Rangoon.....	Apr. 11–17.....	5	5	
Iraq:.....				
Bagdad.....	Mar. 21–Apr. 17.....	33	15	
Java:.....				
East Java and Madoera.....	Feb. 28–Mar. 6.....	5	5	
Surabaya.....	Mar. 14–27.....	3	3	
Siam:.....				
Bangkok.....	Apr. 4–10.....	2		
Union of South Africa:.....				
Cape Province.....	Apr. 4–10.....	1	1	Apr. 4–10, 1926: Cases, 3; deaths, 1. Native.
Orange Free State.....	do.....	2		Native.

## SMALLPOX

Algeria.....	Apr. 11–20.....	3	
Brazil:.....			
Para.....	May 2–8.....	2	2
British East Africa:.....			
Uganda.....	Feb. 1–28.....	1	
Canada:.....			
Toronto.....	May 9–15.....	3	

<sup>1</sup> From medical officers of the Public Health Service, American consuls, and other sources.

# **CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued**

## **Reports Received During Week Ended June 4, 1926—Continued**

### **SMALLPOX—Continued**

Place	Date	Cases	Deaths	Remarks
<b>China:</b>				
Amoy.....	Apr. 5-17.....		9	
Foochow.....	Apr. 11-17.....			Present.
<b>Manchuria—</b>				
Anshan.....	Apr. 18-24.....	1		South Manchuria Ry. Line
Antung.....	do.....	2		Do.
Changchun.....	do.....	2		Do.
Fushun.....	do.....	2		Do.
Harbin.....	Apr. 18-22.....	4		Do.
Liao-yang.....	Apr. 18-24.....	1		Do.
Tieh-ling.....	do.....	1		Do.
Nanking.....	Apr. 11-24.....			Present.
Shanghai.....	Apr. 4-17.....	1	6	Cases, foreign; deaths, Chinese and foreign.
Swatow.....	Apr. 11-24.....			Sporadic.
<b>France:</b>				
Paris.....	Apr. 21-30.....	1		
<b>Great Britain:</b>				
Bradford.....	May 2-8.....	1		
Newcastle-on-Tyne.....	do.....	1		
Nottingham.....	Apr. 18-24.....	2		
Sheffield.....	Apr. 25-May 8.....	3		
<b>India:</b>				Mar. 21-Apr. 3, 1926; Cases, 13,966; deaths, 3,254.
Bombay.....	Apr. 4-10.....	36	20	
Calcutta.....	Mar. 28-Apr. 3.....	33	31	
Karachi.....	Apr. 18-24.....	14	4	
Madras.....	do.....	3	1	
Rangoon.....	Apr. 11-17.....	1	2	
<b>Iraq:</b>				
Bagdad.....	Mar. 21-Apr. 17.....	3	2	
Basra.....	Mar. 14-Apr. 17.....	15	9	
<b>Italy:</b>				
Catania.....	Apr. 27-May 2.....	4		
<b>Japan:</b>				
Yokohama.....	Apr. 11-17.....	4		
<b>Java:</b>				
East Java and Madoera.....	Mar. 14-27.....	4	3	
<b>Mexico:</b>				
Chihuahua.....	May 9-17.....	7		
Ciudad Juarez.....	do.....		1	
Guadalupe.....	May 11-17.....		1	
Mexico City.....	Apr. 25-May 1.....	6		Including municipalities in Federal district.
San Luis Potosi.....	May 9-15.....		8	
Torreón.....	Apr. 1-30.....		16	
<b>Senegal:</b>				
Dakar.....	Apr. 19-25.....	1		
<b>Siam:</b>				
Bangkok.....	Apr. 4-10.....	9		
<b>Spain:</b>				
Valencia.....	May 2-8.....	3		
<b>Syria:</b>				
Damascus.....	Apr. 11-20.....	1		

### **TYPHUS FEVER**

<b>Greece:</b>				
Saloniki.....	Apr. 13-19.....	1		
<b>Ireland (Free State):</b>				
Cork District.....	May 2-8.....	1		
<b>Latvia:</b>				
Riga.....	Feb. 1-28.....	18		
<b>Mexico:</b>				
Agua Calientes.....	May 2-8.....		1	
Mexico City.....	Apr. 25-May 1.....	10		Including municipalities in Federal District.
<b>Union of South Africa:</b>				Apr. 4-10, 1926; Outbreaks in Mount Currie and Tsolo District.
Cape Province.....	Feb. 27-Apr. 2.....	1		
<b>Natal—</b>				
Durban.....	Apr. 4-17.....	4		
Port Shepstone.....	Apr. 4-10.....	1		
<b>Yugoslavia:</b>				Feb. 22-Mar. 21, 1926; Cases, 24; deaths, 6.

# **CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued**

**Reports Received from December 26, 1925, to May 28, 1926<sup>1</sup>**

## **CHOLERA**

Place	Date	Cases	Deaths	Remarks
Chosen.....	October-November, 1925.	12	5	
French Settlements in India.....	Dec. 1-31.....	880	712	
India.....				
Calcutta.....	Nov. 1-28.....	101	89	Oct. 18, 1925, to Jan. 2, 1926: Cases, 21,316; deaths, 12,371. Jan. 3-Mar. 13, 1926: Cases, 31,105; deaths, 17,879.
Do.....	Dec. 6-26.....		54	
Do.....	Dec. 27-Jan. 16.....		41	
Do.....	Jan. 24-Apr. 3.....	464	417	
Madras.....	Nov. 15-Jan. 2.....	174	70	
Do.....	Jan. 3-Apr. 17.....	146	90	
Rangoon.....	Nov. 8-Dec. 3.....	4	4	
Do.....	Jan. 24-Apr. 10.....	17	14	
Indo-China.....				September-December, 1925: Cases, 11; deaths, 7.
Province—				
Annam.....	Sept. 1-30.....	2	2	
Cambodia.....	Dec. 1-31.....	2	1	
Cochin China.....	Sept. 1-Dec. 31.....	6	4	
Saigon.....	Jan. 4-17.....	2	2	
Tonkin.....	Sept. 1-Nov. 30.....	3		
Japan.....	Aug. 30-Oct. 17.....	409		
Do.....	Oct. 23-Dec. 26.....	113		
Do.....	Jan. 17-30.....	5		
Philippine Islands:				
Manila.....	Nov. 9-Jan. 3.....	15	10	
Do.....	Jan. 4-Mar. 6.....		27	
Province—				
Bataan.....	Nov. 30-Dec. 26.....	29	25	
Do.....	Jan. 2-16.....	1	1	
Batangas.....	Jan. 24-Feb. 20.....	13	13	
Bohol.....	Jan. 23-30.....	1	1	
Bulacan.....	Oct. 18-Nov. 7.....	92	64	
Do.....	Nov. 23-Dec. 31.....	200	88	
Do.....	Jan. 2-30.....	6	5	
Laguna.....	Nov. 28-Dec. 26.....	18	14	
Do.....	Jan. 24-Feb. 6.....	5	6	
Leyte.....	Jan. 3-9.....	2	2	
Mindoro.....	Dec. 20-31.....	31	30	
Nueva Ecija.....	Nov. 30-Dec. 13.....	7	5	
Pampanga.....	Nov. 1-7.....	1	1	
Do.....	Nov. 23-Dec. 31.....	113	85	
Do.....	Jan. 2-Mar. 3.....	39	35	
Rizal.....	Sept. 27-Nov. 21.....	75	21	
Do.....	Dec. 21-30.....	14	11	
Do.....	Jan. 3-Feb. 20.....	89	39	
Romblon.....	Nov. 8-Dec. 13.....	27	14	
Russia.....	May-June.....	7		
Do.....	July-August.....	4		
Siam:				
Bangkok.....	Oct. 4-Nov. 11.....	108	68	
Do.....	Nov. 22-Dec. 26.....	270	149	
Do.....	Dec. 27-Mar. 13.....	398	275	
Do.....	Mar. 21-27.....	90	52	
On vessel:				
Steamship.....	Oct. 3.....	9		Arrived at Bangkok, Siam: Cases in coolie passengers.

## **PLAGUE**

Argentina.....				
Buenos Aires.....	Jan. 21-30.....	1		Jan. 24-30, 1926: 6 cases, occurring in interior Provinces of Salta and Santa Fe.
Azores:				
St. Michaels.....	Jan. 17-Apr. 3.....	9	4	
Belgium:				
Vilvorde.....	Dec. 1-8.....	1	1	
Brazil:				
Bahia.....	Nov. 8-Dec. 28.....	3	1	
Do.....	Dec. 27-Jan. 30.....	4	2	
Santos.....	Dec. 8-21.....	2	2	
Sao Paulo.....	Reported Mar. 25.....	4	1	

<sup>1</sup> From medical officers of the Public Health Service, American consuls, and other sources.

# CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued

Reports Received from December 26, 1925, to May 28, 1926—Continued

## PLAGUE—Continued

Place	Date	Cases	Deaths	Remarks
<b>British East Africa:</b>				
<b>Kenya—</b>				
Kisumu.....	Nov. 22-Dec. 5.....	1	2	
Do.....	Jan. 31-Mar. 20.....	15	3	
Uganda Protectorate.....	Sept. 1-Dec. 31.....	468	426	
Do.....	Jan. 1-31.....	109	101	
<b>Canary Islands:</b>				
La Laguna.....	Dec. 24.....	3	2	
Las Palmas.....	do.....	1	1	
Do.....	Jan. 7.....	1	1	
Santa Cruz de Tenerife.....	Dec. 18-27.....	3	3	
Do.....	Dec. 28-Feb. 1.....	3	3	
<b>Celebes:</b>				
Makassar.....	Dec. 20-Feb. 2.....	12	12	Netherlands East Indies.
<b>Ceylon:</b>				
Colombo.....	Nov. 15-Dec. 5.....	3	3	1 plague rodent.
Do.....	Dec. 27-Jan. 16.....	2	2	
Do.....	Jan. 24-Mar. 6.....	5	5	Feb. 14-20, 1926: Two plague rodents.
<b>China.</b>				
Nanking.....	Nov. 15-Mar. 27.....			Prevalent.
<b>Ecuador:</b>				
Ambato.....	Mar. 31.....		5	
Eloy Alfaro.....	Jan. 1-15.....	1		
Guayaquil.....	Nov. 1-Dec. 31.....	31	12	Rats taken, Nov. 1-Dec. 31, 1925, 49,370; rats found infected, 281.
Do.....	Jan. 1-Apr. 15.....	63	28	Rats taken, Jan. 1-Mar. 31, 1926, 73,499; rats found infected, 592.
<b>Latacunga</b>				
.....	Apr. 12.....			Present.
Recreo (country estate).....	do.....	1		
<b>Egypt.</b>				
Alexandria.....	Mar. 10-Apr. 16.....	3	1	Jan. 1-Dec. 9, 1925: Cases, 138.
Beni Suef.....	Nov. 18.....	1	1	Jan. 1-Apr. 8, 1926: Cases, 10.
Fayoum Province.....	Dec. 3-9.....	1	1	
Gharbia Province.....	Mar. 9-30.....	5	3	
Mina Province.....	Mar. 4.....	1	1	
Suez.....	Mar. 27-Apr. 19.....	4	1	
<b>Greece:</b>				
Athens.....	Nov. 1-30.....	18	4	Including Piræus.
Do.....	Jan. 1-Mar. 31.....	25	4	
Herakleion.....	Feb. 4.....	1	1	On island of Crete.
Patras.....	Nov. 13-Dec. 12.....	4	1	
<b>Hawaii Territory</b>				
Hawaii—	Feb. 2.....			1 plague-infected rodent found near Hamakua Mill Co.
Honokaa.....	Mar. 16.....	2		1 death suspected plague.
Kakuihaela.....	Mar. 19.....	1	1	
Panulo.....				Jan. 29, 1926: Plague-infected rat found in vicinity.
<b>India.</b>				
Bombay.....	Dec. 6-12.....	1	1	Oct. 18, 1925-Jan. 2, 1926: Cases, 15,135; deaths, 10,677.
Do.....	Jan. 3-Apr. 3.....	5	11	Jan. 3-Mar. 13, 1926: Cases, 53,563; deaths, 41,553.
Calcutta.....	Dec. 6-12.....		1	
Karachi.....	Nov. 1-Dec. 19.....	4	3	
Do.....	Feb. 21-Apr. 17.....	18	9	
Madras Presidency.....	Oct. 25-Nov. 7.....	75	41	
Do.....	Nov. 15-21.....	35	22	
Do.....	Dec. 20-26.....	108	64	
Do.....	Jan. 3-Mar. 20.....	1,229	773	
Do.....	Apr. 11-17.....	25	18	
Rangoon.....	Oct. 25-Dec. 26.....	23	15	
Do.....	Dec. 27-Apr. 10.....	119	109	
<b>Indo-China—</b>				
Province—				September-December, 1925: Cases, 28; deaths, 26.
Cambodia.....	Sept. 1-Nov. 30.....	13	13	
Cochin China.....	Sept. 1-Dec. 31.....	15	13	
<b>Iraq:</b>				
Bagdad.....	Dec. 13-Jan. 2.....	7	3	
Do.....	Jan. 10-Mar. 20.....	78	46	
<b>Java:</b>				
Batavia.....	Oct. 24-Nov. 6.....	94	89	Province.
Do.....	Nov. 14-Jan. 1.....	315	267	
Do.....	Jan. 2-Mar. 12.....	463	465	
Do.....	Mar. 19-Apr. 2.....	19	19	
Charibon.....	Sept. 27-Oct. 17.....		166	
Do.....	Nov. 15-Dec. 26.....		198	
Do.....	Jan. 3-Mar. 6.....		191	

# **CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued**

**Reports Received from December 26, 1925, to May 28, 1926—Continued**

## **PLAGUE—Continued**

Place	Date	Cases	Deaths	Remarks
Java—Continued.				
Djakakarta.	Oct. 20-Nov. 9			Epidemic in 1 locality.
Kediri.	Dec. 7			Do.
Koeniginan.	Dec. 27-Jan. 16		114	
Do.	Feb. 7-Mar. 6		103	
Pekalongan.	Sept. 27-Oct. 17		42	
Do.	Nov. 3-Dec. 26		252	
Do.	Feb. 14-Mar. 6		123	
Probolinggo.	Feb. 12			Epidemic. Port.
Oct. 20				Do.
Rembang.	Oct. 11-Dec. 26	59	59	
Surabaya.	Dec. 27-Mar. 13	42	42	
Do.	Sept. 27-Oct. 17	6	6	
Tegal.	Nov. 8-Dec. 26		31	
Do.	Feb. 21-Mar. 6		11	
Madagascar.				Nov. 1-December 31, 1925: Cases, 632; deaths, 593. Jan. 1-31, 1926: Cases, 611; deaths, 565, Mar. 1-15, 1926: Cases, 111; deaths, 79.
Province—				
Amboitra.	Dec. 16-31	9	7	
Do.	Jan. 1-15	2	2	
Fort Dauphin.	Sept. 16-30	6	3	
Do.	Jan. 16-Mar. 15	4	4	
Itasy.	Sept. 16-Oct. 30	20	20	
Do.	Nov. 16-Dec. 31	34	34	
Do.	Jan. 1-15	29	29	
Do.	Feb. 1-15	29	29	
Moramanga.	Sept. 16-Dec. 31	49	48	
Do.	Jan. 1-Mar. 15	51	47	
Tananarive.				Sept. 16-Nov. 30, 1925: Cases, 363; deaths, 341. Dec. 16-31, 1925: Cases, 152; deaths, 143. Jan. 1-Mar. 15, 1926: Cases, 583; deaths, 486.
Town—				
Tamatave (Port).	Sept. 16-Nov. 30	42	11	
Do.	Feb. 1-Mar. 15	5	3	
Tananarive.	Sept. 16-30	2	2	
Do.	Nov. 1-30	11	11	
Do.	Jan. 1-Mar. 15	40	40	
Mauritius Island.	Sept. 20-Dec. 26	21	18	
Moca.	Dec. 1-31	2	2	
Pamplemousses.	Oct. 1-Nov. 30	3	2	
Port Louis.	Oct. 1-Dec. 31	13	9	
Rivière du Rempart.	October	2		
Nigeria.	Aug. 1-Dec. 31	594	447	
Do.	Jan. 1-31	24	21	
Persia:				
Teheran.	Oct. 21-Nov. 21		12	
Peru.				January-March, 1926: Cases, 363; deaths, 144.
Barranca and Supo.	Mar. 1-31	4	6	
Chafete.	do	1		
Carnes.	do			Present.
Cascas.	do	15	5	
Chiclayo.	do		4	
Chimbote.	do	16	8	
Chincha.	do	14	5	
Continanza.	do	12		
Cutorco.	do			
Huacho.	do			Present.
Jan. 26		15		Port 60 miles north of Callao.
Lacramarca.	Mar. 1-31	6		
Lima.	Jan. 1-31	20		In hospital. Some cases in Prov- ince.
Mollendo.	do			12 or 15 cases reported unoffi- cially.
Do.	Mar. 1-31			Present.
Moro.	do			
Otuzco.	do	1		
Pacasmayo.	do	2	1	
Salaverry.	do	5	2	
San Pablo.	do			
Trujillo.	do	15	5	Do.
Russia.	May-June			
Do.	July-November	217		
Senegal.	September-October	45	25	
Siam.	Aug. 23-Dec. 26	65	53	
Do.	Dec. 27-Jan. 30	16	9	
Bangkok.	Nov. 15-23	3	3	
Do.	Jan. 3-30	38	33	
Do.	Feb. 7-20	11	5	
Do.	Feb. 28-Mar. 20	3	2	
Straits Settlements:				
Singapore.	Nov. 1-Dec. 5	3	8	
Do.	Jan. 3-Mar. 20	3	3	

# **CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued**

**Reports Received from December 26, 1925, to May 28, 1926—Continued**

## **PLAGUE—Continued**

Place	Date	Cases	Deaths	Remarks
Syria:				
Beirut.....	Nov. 11-20.....	1		
Do.....	Jan. 21-31.....	1		
Union of South Africa.....				Mar. 7-13, 1926: Cases, 3; European, 2. Mar. 21-27, 1926: Cases, 12; deaths, 4.
Cape Province—				
Kimberley district.....	Dec. 13-19.....	1		European.
Middleburg district.....	Dec. 6-12.....	1		Native. On farm.
Steynsburg district.....	Nov. 15-21.....	1		
Winburg district.....	Feb. 21-27.....	1		
Orange Free State.....				Mar. 14-Apr. 3, 1926: Cases, 9; deaths, 5.
Boshof district.....	Nov. 29-Dec. 5.....	1	1	In native.
Bothaville district.....	Dec. 6-12.....	1	1	Native. On farm.
Bradford district.....	Mar. 28-Apr. 3.....	1	1	
Grandfort district.....	Mar. 21-27.....	3	1	European, in same family, pneumonic.
Hoopstad district.....	Mar. 7-Apr. 3.....	3	4	
Kroonstad district.....	Mar. 14-20.....	1		Native. On farm.
Winburg district.....	Mar. 14-Apr. 3.....	11	5	
On vessel:				
Steamship Cid.....				Jan. 29, 1926. Plague rat. At Buenaventura, Colombia. Rat was killed while jumping ashore from vessel.

## **SMALLPOX**

Algeria:				
Algiers.....	Nov. 21-Dec. 31.....	177		
Do.....	Jan. 1-10.....	64		
Do.....	Jan. 21-Apr. 10.....	76		
Arabia:				
Aden.....	Nov. 29-Dec. 5.....	1		Imported.
Do.....	Jan. 10-Mar. 6.....	10	1	
Argentina:				
Rosario.....	October.....		1	
Australia:				
Queensland—				
Brisbane.....	Dec. 9-15.....	1		
Azores:				
Fayal Island.....	Feb. 2-Apr. 11.....			Present. Reported as astrim.
Bahamas.....	Feb. 23.....			In Nassau district. Stated to have been imported.
Brazil:				
Manaos.....	Dec. 1-31.....		12	
Do.....	Jan. 31-Feb. 20.....		6	
Para.....	Jan. 10-Apr. 24.....	23	8	
Rio de Janeiro.....	Nov. 1-28.....	134	72	
Do.....	Dec. 6-26.....	65	26	
Do.....	Dec. 27-Apr. 3.....	279	224	June 27, 1925-Mar. 30, 1926: Cases, 1,089; deaths, 500.
British East Africa:				
Kenya—				
Mombasa.....	Nov. 15-Dec. 19.....	14	6	
Do.....	Dec. 27-Mar. 20.....	2		
Tanganyika territory—				
Dar-es-Salaam.....	Feb. 21-27.....	1		
Uganda Protectorate.....	Sept. 1-Oct. 31.....	8	4	
British South Africa:				
Northern Rhodesia.....	Jan. 5-11.....	2		
Southern Rhodesia.....	Nov. 13-Dec. 23.....	3		
Canada.....				Sept. 13-Jan. 2: In 7 Provinces, 193 cases. Jan. 3-Feb. 27, 1926: Cases, 277.
Alberta.....				Jan. 3-May 1, 1926: Cases, 70.
Calgary.....	Dec. 13-19.....	1		From Drumheller, vicinity of Calgary.
British Columbia—				
Vancouver.....	Jan. 4-Mar. 27.....	2		
Victoria.....	Mar. 21-27.....	2		
Manitoba.....				Jan. 3-May 8, 1926: Cases, 73.
Winnipeg.....	Dec. 13-19.....	2		
Do.....	Jan. 3-Apr. 10.....	16	1	

# **CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued**

**Reports Received from December 26, 1925, to May 28, 1926—Continued**

## **SMALLPOX—Continued**

Place	Date	Cases	Deaths	Remarks
<b>Canada—Continued.</b>				
New Brunswick—				
Northumberland.....	Dec. 6-13.....	1		
Ontario.....				Dec. 1-31, 1925: Cases, 32. Jan. 3-May 8, 1926: Cases, 269.
Admaston.....	Jan. 1-Feb. 1.....	16		Township.
Alice and Fraser.....	Feb. 1-28.....	6		Do.
King.....	do.....	7		Do.
Wilmot.....	do.....	0		Do.
Belleville.....	do.....	4		
Kingston.....	Mar. 8-14.....	1		
Kitchener.....	do.....	20		
North Bay.....	Feb. 14-Mar. 14.....	7		
Ottawa.....	Dec. 6-12.....	2		
Do.....	Jan. 3-Feb. 6.....	2		
Sarnia.....	Mar. 14-May 8.....	9		
Toronto.....	Dec. 27-Jan. 2.....	1		
Do.....	Jan. 3-May 1.....	28		
Trenton.....	Jan. 3-Apr. 17.....	15		
Saskatchewan.....				Jan. 3-May 8, 1926: Cases, 131.
Moose Jaw.....	Jan. 3-Mar. 20.....	2		
Regina.....	Jan. 24-May 1.....	5		
Saskatoon.....	Feb. 14-20.....	1		
Ceylon:				
Colombo.....	Dec. 6-12.....	1		Port case.
Do.....	Jan. 3-Feb. 6.....	5		
Chile:				
Punta Arenas.....	Dec. 13-26.....		8	
Do.....	Dec. 27-Jan. 2.....		4	
China:				
Amoy.....	Oct. 25-Dec. 19.....		1	
Do.....	Jan. 10-Apr. 3.....		26	
Antung.....	Dec. 7-20.....	2		
Do.....	Mar. 21-Apr. 4.....	1		
Changsha.....	Feb. 21-27.....			Present.
Chungking.....	Nov. 15-27.....			Do.
Do.....	Feb. 28-Apr. 3.....			Do.
Foochow.....	Nov. 1-Apr. 10.....			Do.
Hankow.....	Nov. 14-Dec. 26.....	4		
Do.....	Jan. 10-Mar. 6.....	3		
Hongkong.....	Nov. 22-Dec. 28.....	4		
Do.....	Jan. 3-Apr. 3.....	17	5	
Manchuria—				
An-shan.....	Dec. 6-12.....	1		
Do.....	Jan. 10-Mar. 20.....	9		
Changchun.....	do.....	21		
Dairen.....	Oct. 19-Dec. 27.....	73	15	
Do.....	Dec. 28-Apr. 4.....	87	28	
Fushun.....	Jan. 17-Mar. 31.....	3		
Harbin.....	Jan. 1-Apr. 15.....	18		
Kai-yuan.....	Jan. 10-30.....	4		
Kungchuling.....	Jan. 31-Feb. 20.....	2		
Lio-yang.....	Jan. 17-Mar. 30.....	5		
Mukden.....	Oct. 24-Nov. 15.....	1		
Do.....	Jan. 24-Feb. 27.....	4		
Suping Kai.....	Mar. 14-Apr. 3.....	2		
Tieh-ling.....	Oct. 26-Nov. 15.....	2		
Nanking.....	Nov. 21-Dec. 28.....			Do.
Do.....	Dec. 27-Apr. 10.....			Do.
Shanghai.....	Oct. 25-Jan. 2.....	37	36	
Do.....	Jan. 3-Apr. 3.....	37	134	Cases, foreign only.
Swatow.....	Nov. 23-Apr. 10.....			Prevalent.
Tientsin.....	Nov. 1-Dec. 19.....	2		
Do.....	Jan. 23-Feb. 27.....	2		
Chosen:				
Seishin.....	Jan. 1-Mar. 31.....	58	33	
Egypt:				
Alexandria.....	Dec. 3-31.....	5	2	
Do.....	Jan. 8-14.....	2	1	
Do.....	Jan. 29-Apr. 8.....	63	11	
Cairo.....	Dec. 25-31.....	14		
Do.....	Jan. 1-7.....	3		
Port Said.....	Feb. 26-Mar. 4.....	1		
Esthonia.....				November, 1925: Cases, 3.



# **CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued**

**Reports Received from December 26, 1925, to May 28, 1926—Continued**

## **SMALLPOX—Continued**

Place	Date	Cases	Deaths	Remarks
France				September-December, 1925: Cases, 253.
Do.	Jan. 1-31.	57		
Havre	Jan. 25-31.		9	
Paris	Mar. 1-31.	10	2	
Gold Coast	September, December.	58	5	
Do.	Jan. 1-31.	36	3	
Great Britain:				
England and Wales				Nov. 15-Dec. 26, 1925: Cases, 790; Dec. 27-Apr. 24, 1926: Cases, 4, 144.
Hull	Dec. 27-Jan. 23.	29		
Do.	Feb. 7-Mar. 27.	9		
Leeds	Jan. 14-Feb. 6.	4		
London	Jan. 31-Feb. 6.		1	
Newcastle-on-Tyne	Nov. 29-Dec. 19.	6		
Do.	Dec. 27-Apr. 10.	40	1	
Nottingham	Nov. 22-Dec. 26.	9		
Do.	Dec. 27-Mar. 13.	6		
Sheffield	Nov. 22-Dec. 12.	7		
Do.	Dec. 20-26.	3		
Do.	Dec. 27-Mar. 20.	18		
South Shields	Feb. 9.			Reported present in severe form. Oct. 1-31, 1925: Cases, 16.
Greece				
Athens	Nov. 1-Dec. 31.	18	1	
Do.	Jan. 1-Mar. 31.	87	6	
Kalamata	Mar. 1-7.	1		From Patras.
Saloniki	Feb. 16-Mar. 13.		2	
Guadeloupe (West Indies)				Apr. 23-May 10, 1926: Present. Alastrim.
India				Oct. 18-Dec. 26, 1925: Cases, 13,472; deaths, 4,440. Dec. 27, 1925-Mar. 20, 1926: Cases, 77,893; deaths, 20,629.
Bombay	Nov. 8-Dec. 26.	26	20	
Do.	Dec. 27-Apr. 3.	292	151	
Calcutta	Nov. 8-Dec. 26.	48	25	
Do.	Dec. 27-Apr. 3.	620	397	
Karachi	Nov. 1-21.	23		
Do.	Nov. 29-Dec. 5.	4	2	
Do.	Dec. 13-19.	3		
Do.	Dec. 29-Apr. 17.	113	36	
Madras	Nov. 15-Dec. 26.	17	5	
Do.	Dec. 27-Apr. 17.	143	25	
Rangoon	Oct. 25-Dec. 26.	7	1	
Do.	Dec. 27-Jan. 16.	13	1	
Do.	Jan. 24-Mar. 6.	70	17	
Do.	Mar. 21-Apr. 10.	28	7	
Indo-China				September-November, 1925: Cases, 346; deaths, 86.
Province—				
Annam	Sept. 1-Dec. 31.	232	44	
Cambodia	do.	84	34	
Cochin China	do.	106	51	
Saigon	Dec. 21-27.	2	1	
Do.	Jan. 1-Mar. 23.	14	2	
Tonkin	Sept. 1-Dec. 31.	153	2	Including 100 square kilometers of surrounding country.
Iraq:				
Bagdad	Nov. 1-Dec. 26.	19	15	Sept. 6-Oct. 17, 1925: Cases, 81; deaths, 40.
Do.	Dec. 27-Mar. 13.	20	11	
Basra	do.	52	42	
Italy				Aug. 2, 1925-Jan. 2, 1926: Cases, 52. Jan. 3-Feb. 20, 1926: Cases, 26.
Catania	Feb. 15-28.	7	1	
Genoa	Jan. 31-Feb. 10.	4		
Rome	Oct. 12-25.	1		
Do.	Feb. 22-28.	1		Occurring in consular district.
Jamaica				Nov. 20-Dec. 24, 1925: Cases, 95. Dec. 27, 1925-Apr. 24, 1926: Cases, 509. Reported as alastrim.
Kingston	Nov. 29-Dec. 26.	43		Reported as alastrim.
Do.	Dec. 27-Jan. 30.	48		Do.
Do.	Feb. 28-Apr. 24.	36		Do.
Japan:				
Kobe	Mar. 14-Apr. 17.	3		
Nagasaki	Feb. 15-25.	2		
Taiwan	Nov. 11-Dec. 10.	3		
Do.	Mar. 21-31.	3		
Yokohama	Dec. 14-20.	1		
Do.	Feb. 23-Apr. 10.	67	11	

# **CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued**

**Reports Received from December 26, 1925, to May 28, 1926—Continued**

## **SMALLPOX—Continued**

Place	Date	Cases	Deaths	Remarks
Java:				
Batavia.....	Oct. 24-Dec. 25.....	8	-----	
Do.....	Feb. 20-Mar. 19.....	6	-----	
Buitenzorg.....	Nov. 20-Dec. 5.....	1	-----	
Cheribon.....	Nov. 8-Dec. 12.....	2	-----	
Do.....	Jan. 31-Feb. 6.....	-----	1	
Kraksan.....	Oct. 11-17.....	11	-----	
Malang.....	Oct. 11-Dec. 26.....	2	-----	
Do.....	Dec. 27-Jan. 16.....	3	2	
North Bantam.....	Oct. 4-17.....	4	-----	
Pekalongan.....	Oct. 25-31.....	1	-----	
Pontianak.....	Jan. 31-Feb. 6.....	-----	1	
Probolinggo.....	Oct. 11-17.....	1	-----	
Serang.....	Feb. 14-27.....	5	-----	
South Bantam.....	Feb. 23-Mar. 27.....	1	-----	
Surabaya.....	Oct. 11-Dec. 26.....	633	104	
Do.....	Dec. 27-Mar. 13.....	141	43	
Tegal.....	Oct. 4-10.....	9	1	
Latvia.....				December, 1925: Cases, 3.
Malta.....	Nov. 1-Dec. 21.....	21	3	
Do.....	Jan. 1-Feb. 28.....	20	-----	
Martinique.....	May 10.....	-----	-----	Prevalent.
Mexico.....				July-September, 1925: Deaths, 1,187.
Aguascalientes.....	Dec. 13-Jan. 2.....	4	3	
Do.....	Jan. 3-30.....	-----	7	
Do.....	Feb. 14-May 8.....	-----	4	
Durango.....	Dec. 1-31.....	-----	1	
Do.....	Jan. 1-31.....	-----	2	
Guadalajara.....	Dec. 27-Mar. 10.....	-----	25	
Mexico City.....	Nov. 28-Dec. 5.....	1	-----	Including municipalities in Federal District.
Do.....	Jan. 3-Apr. 24.....	11	-----	Do.
Saltillo.....	Apr. 4-10.....	1	-----	
San Luis Potosi.....	Jan. 17-Mar. 20.....	-----	53	
Do.....	Mar. 28-May 8.....	15	25	
Tampico.....	Dec. 21-Jan. 2.....	1	1	
Do.....	Jan. 2-Mar. 10.....	8	-----	
Torreón.....	Nov. 1-Dec. 31.....	-----	51	
Do.....	Jan. 1-Mar. 31.....	-----	65	
Vera Cruz.....	Mar. 29-Apr. 4.....	5	1	
Netherlands:				
The Hague.....	Jan. 30-Mar. 6.....	2	1	
Nigeria.....				Aug. 1-Dec. 31, 1925: Cases, 380; deaths, 6.
Do.....	Jan. 1-31.....	135	1	
Palestine:				
Hebron.....	Jan. 26-Feb. 1.....	2	-----	
Tiberias.....	Feb. 9-15.....	1	-----	
Persia:				
Teheran.....	July 23-Dec. 22.....	-----	775	
Do.....	Dec. 23-Feb. 19.....	-----	99	
Peru:				
Arequipa.....	Oct. 1-Dec. 31.....	-----	2	
Poland.....				Nov. 1-28, 1925: Cases, 0. Jan. 1-10, 1926: Cases, 4.
Portugal.....				Mar. 1-28, 1926: Deaths, 6.
Lisbon.....	Oct. 4-31.....	124	-----	
Do.....	Nov. 16-Dec. 27.....	-----	60	
Do.....	Nov. 14-Dec. 26.....	187	-----	
Do.....	Dec. 27-Apr. 25.....	126	32	
Oporto.....	Nov. 22-Dec. 19.....	2	3	
Do.....	Dec. 27-Apr. 24.....	4	1	
Rumania.....	August-October.....	3	-----	
Russia.....				May-June, 1925: Cases, 2,333.
Do.....	July-October.....	1,563	-----	July 1-Dec. 31, 1925: Cases, 3,447.
Siam.....				July 12-Sept. 5, 1925: Cases, 21; deaths, 6.
Bangkok.....	Dec. 20-25.....	3	1	
Do.....	Dec. 26-Mar. 6.....	81	37	
Do.....	Mar. 14-Apr. 3.....	21	13	
Sierra Leone:				
Konno district.....	Dec. 16-31.....	5	-----	
Spain:				
Madrid.....	Year 1925.....	-----	18	
Do.....	Jan. 1-31.....	-----	1	
Malaga.....	Nov. 29-Dec. 5.....	-----	2	
Do.....	Dec. 27-Jan. 2.....	-----	1	

# **CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued**

**Reports Received from December 26, 1925, to May 28, 1926—Continued**

## **SMALLPOX—Continued**

Place	Date	Cases	Deaths	Remarks
Spain—Continued.				
Valencia.....	Dec. 20-26.....	1		
Do.....	Dec. 27-Jan. 2.....	1		
Do.....	Jan. 10-Feb. 6.....	9		
Do.....	Feb. 14-Apr. 24.....	12		
Straits Settlements:				
Penang.....	Mar. 28-Apr. 3.....		1	
Singapore.....	Dec. 20-26.....	1		
Do.....	Jan. 10-Mar. 27.....	8	2	
Sumatra:				
Medan.....	Feb. 14-27.....	2		
Switzerland.....				June 23-Nov. 21, 1925: Cases, 62.
Lucerne.....	Oct. 1-Nov. 30.....	8		Dec. 27, 1925-Feb. 27, 1926.
Do.....	Jan. 1-31.....	5		Cases, 48.
Zurich.....	Dec. 27-Jan. 2.....	1		
Trinidad (West Indies):				
Port of Spain.....	Jan. 1-Apr. 3.....	12		
Tripolitania.....	July 1-Dec. 31.....	34		
Do.....	Jan. 1-31.....	3		
Tunisia:				
Tunis.....	Nov. 21-30.....	2		
Do.....	Dec. 11-31.....	10	1	
Do.....	Jan. 1-Apr. 20.....	7		
Turkey:				
Constantinople.....	Mar. 9-23.....	2	3	
Union of South Africa:				
Cape Province.....	Jan. 17-23.....			Outbreaks.
Orange Free State.....				Do.
Kuruman district.....	Jan. 10-16.....			Do.
Ladybrand district.....	Dec. 27-Jan. 2.....			
Transvaal.....				Do.
Belfast district.....	do.....			Do.
Germiston district.....	Jan. 2-9.....			Do.
Pretoria district.....	Dec. 6-12.....			Outbreaks. In native compounds.
On vessel.....	Feb. 21.....	2		Mexican steamer Montezuma, at Port of Ensenada, Mexico.

## **TYPHUS FEVER**

Algeria:				
Algiers.....	Nov. 1-Dec. 20.....	2		
Do.....	Jan. 1-Apr. 10.....	13		
Argentina:				
Rosario.....	Oct. 13-Dec. 31.....	2		
Bulgaria.....	Sept. 1-Dec. 31.....	50	3	
Do.....	Jan. 1-31.....	42		
Sofia.....	Dec. 25-31.....	1		
Do.....	Jan. 8-14.....	2		
Canary Islands:				
Santa Cruz de Tenerife.....	Mar. 8-14.....	1		
Chile.....				Dec. 15-31, 1925: Cases, 46. Jan. 1-15, 1926: Cases, 23.
Achao.....	Dec. 15-31.....	1		
Do.....	Jan. 1-15.....	2		
Ancud.....	do.....	2		
Antofagasta.....	Apr. 11-17.....	1		
Bulnes.....	Dec. 15-31.....	1		
Chilian.....	do.....	24		
Concepcion.....	do.....	6		
Linares.....	do.....	1		
Los Angeles.....	do.....	5		
Penco.....	do.....	2		
Salamanca.....	do.....	17		
San Carlos.....	do.....	1		
Talca.....	do.....	1		
Valparaiso.....	Nov. 20-Jan. 2.....	5	2	
Do.....	Jan. 3-Mar. 27.....	4		
China:				
Antung.....	Nov. 20-Dec. 27.....	5	1	
Do.....	Jan. 4-Apr. 11.....	15		
Hongkong.....	Dec. 27-Jan. 2.....	1		
Manchuria—				
Harbin.....	Dec. 17-Feb. 4.....	3		
Do.....	Apr. 2-8.....	1		
Shanghai.....	Mar. 14-20.....	1		

# **CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued**

**Reports Received from December 26, 1925, to May 28, 1926—Continued**

## **TYPHUS FEVER—Continued**

Place	Date	Cases	Deaths	Remarks
Czechoslovakia.....	October-December	146	1	
Do.....	Jan. 1-31.....	32		
Egypt:				
Alexandria.....	Jan. 8-Feb. 25.....	2		
Cairo.....	Nov. 5-Dec. 16.....	3	2	
Port Said.....	Nov. 19-25.....	1		
Do.....	Mar. 12-18.....	1		
Estonia.....	Jan. 1-31.....	6		
Finland.....				October, 1925: 1 case.
France.....	July-October.....	4		
Greece.....				December, 1925: Cases, 12.
Athens.....	Nov. 1-30.....	11	2	
Do.....	Jan. 1-Mar. 31.....	45	9	
Saloniki.....	Dec. 29-Jan. 4.....	1		
Do.....	Feb. 2-Mar. 22.....	2		
Hungary.....				November-December, 1925: Cases, 16. Jan. 1-31, 1926: Cases, 6.
Ireland:				
Cork County—				
Cork.....	Dec. 26-Jan. 1.....	2		
Do.....	Jan. 2-8.....	5		
Dumanway.....	Nov. 14.....	1		
Galway County.....	Oct. 17.....	1		
Kerry County—				
Listowel.....	Mar. 7-13.....	1		Rural district.
Wexford County—				
Gorey.....	do.....	1		Do.
Latvia.....	October-December	12		
Riga.....	Oct. 1-31.....	2		
Lithuania.....				September-December, 1925: Cases, 26; deaths, 1. Jan. 1-31, 1926: Cases, 16; deaths, 1.
Mexico.....				July-September, 1925: Deaths, 90.
Aguascalientes.....	Dec. 14-19.....	1		
Durango.....	Dec. 1-31.....		1	
Do.....	Jan. 1-31.....	1	1	
Guadalajara.....	Dec. 8-28.....	1	2	
Do.....	Dec. 29-Jan. 4.....		1	
Mexico City.....	Nov. 22-Dec. 26.....	50		Including municipalities in Federal District.
Do.....	Dec. 27-Mar. 20.....	89		Do.
Do.....	Mar. 28-Apr. 10.....	11		Do.
San Luis Potosi.....	Feb. 6-13.....		1	
Tampico.....	Dec. 21-Jan. 10.....	1	1	
Torreón.....	November, 1925.....		1	
Vera Cruz.....	Feb. 12.....		1	
Morocco.....	August-December	93		
Do.....	Jan. 1-31.....	57		
Norway.....				November-December, 1925: Cases, 2.
Palestine:				
Ekron.....	Mar. 30-Apr. 5.....	1		
Gaza.....	Dec. 18.....	1		
Haifa.....	Mar. 10-Apr. 19.....	2		
Jaffa.....	Dec. 1-7.....	1		
Do.....	Feb. 29-Mar. 1.....	1		
Nazareth.....	Nov. 3-9.....	1		
Ramleh.....	Mar. 16-22.....	1		
Safad.....	Nov. 24-30.....	1		
Tel-Aviv.....	do.....	1		
Do.....	Mar. 9-15.....	1		
Tiberias.....	do.....	2		
Peru:				
Arequipa.....	October-December		3	
Do.....	Feb. 1-Mar. 31.....		2	
Poland.....	Oct. 11-Jan. 2.....	462	44	
Do.....	Jan. 3-Feb. 13.....	611	45	
Rumania.....				July 1-Dec. 31, 1925: Cases, 348; deaths, 41.
Constantza.....	Feb. 1-Mar. 10.....	2		
Russia.....				May-June, 1925: Cases, 10,680.
Do.....				July 1-Nov. 30, 1925: Cases, 7,980.
Tunisia:				
Tunis.....	Mar. 21-31.....	3		
Turkey:				
Constantinople.....	Jan. 24-30.....	2		
Do.....	Feb. 9-Mar. 31.....	6	4	

# **CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued**

**Reports Received from December 26, 1925, to May 28, 1926—Continued**

## **TYPHUS FEVER—Continued**

Place	Date	Cases	Deaths	Remarks
Union of South Africa.....				October, 1925: Cases, 88; deaths, 7 (colored). Cases, European, 7. December, 1925. Cases, 78; deaths, 9. Colored: Cases, 73; deaths, 9. January-February, 1926: Cases, 163; deaths, 28. Colored.
Cape Province.....	Oct. 1-31.....	63	5	
Do.....	Nov. 8-Dec. 31.....	47	8	
Do.....	Jan. 1-Feb. 28.....	126	20	Do.
Grahamstown.....	Jan. 24-30.....	2		
Middleburg district.....	Dec. 6-12.....	1		European. On farm.
Natal.....	Oct. 1-Dec. 5.....	1		
Do.....	Jan. 1-Feb. 28.....	11	1	Colored.
Durban.....	Jan. 3-Apr. 3.....	6	1	
Orange Free State.....	Nov. 20-Dec. 5.....	23	1	
Do.....	Dec. 1-31.....	8	1	
Do.....	Jan. 1-Feb. 28.....	8	3	Do.
Bethulia district.....	Dec. 6-12.....			Outbreaks.
Bothaville district.....	do.....	1		Native. On farm.
Transvaal.....	Oct. 1-31.....	1	1	
Do.....	Dec. 1-31.....	18		
Do.....	Feb. 1-28.....	8	4	
Johannesburg district.....	Mar. 1-20.....	3		
Bloemhof district.....	Dec. 27-Jan. 2.....			Outbreak. On farm.
Yugoslavia.....				Jan. 1-Feb. 21, 1926: Cases, 81; deaths, 12.

## **YELLOW FEVER**

Gold Coast.....	Sept. 1-Dec. 31.....	4	3
Nigeria.....	August-October.....	3	2
Senegal.....	November, 1925.....	3	2



12 AUG 1926  
TREASURY DEPARTMENT

# PUBLIC HEALTH REPORTS

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## SPECIAL ARTICLES

Results of Dick Tests Made on Different Groups  
Preliminary Birth, Death, and Infant Mortality  
Rates, 1925

Patients in Hospitals for Mental Diseases



WASHINGTON  
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1926

## UNITED STATES PUBLIC HEALTH SERVICE

HUGH S. CUMMING, *Surgeon General*

### DIVISION OF SANITARY REPORTS AND STATISTICS

Asst. Surg. Gen. B. J. LLOYD, *Chief of Division*

THE PUBLIC HEALTH REPORTS are issued weekly by the United States Public Health Service through its Division of Sanitary Reports and Statistics, pursuant to acts of Congress approved February 15, 1893, and August 14, 1912.

They contain: (1) Current information of the prevalence and geographic distribution of preventable diseases in the United States in so far as data are obtainable, and of cholera, plague, smallpox, typhus fever, yellow fever, and other communicable diseases throughout the world. (2) Articles relating to the cause, prevention, or control of disease. (3) Other pertinent information regarding sanitation and the conservation of the public health.

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# PUBLIC HEALTH REPORTS

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## RESULTS OF DICK TESTS MADE ON DIFFERENT GROUPS

By R. E. DYER, Surgeon, Assistant Director, Hygienic Laboratory, United States Public Health Service; W. P. CATON, M. D., County Health Officer, Fairfax County, Va.; and B. T. SOCKRIDER, Laboratory Assistant, Hygienic Laboratory, United States Public Health Service

The Dick tests reported in this paper were made during the latter part of 1924 and throughout the year 1925. They were made primarily for the purpose of standardizing various lots of toxin or for the examination of antitoxins for potency. A standard toxin furnished by the Doctors Dick was used as the control toxin, and the reactions reported are all based on the reactions produced by that particular toxin except in 69 cases. In these 69 cases a toxin made and standardized at the Hygienic Laboratory was used.

The standard toxin prepared by the Doctors Dick and the toxin made at the Hygienic Laboratory were made from cultures of the two Dick strains of scarlet fever streptococci known as Dick I and Dick II. The medium used for toxin production contained 1 per cent sheep's blood. The final product was preserved with 0.5 per cent phenol.

Record syringes ( $\frac{1}{2}$  c. c.) fitted with  $\frac{1}{2}$ -inch 26-gauge needles were used. The test dose was 0.1 c. c. of a 1 : 1,750 dilution of the toxin.

Control injections of toxin boiled one hour or properly diluted samples of the medium used in toxin production were made in the early subjects. On account of the small number of pseudo reactions noted (2.4 per cent), the use of a control was discontinued. The discontinuance of the control made it possible to use the control site for the injection of a second toxin or of a toxin-antitoxin mixture to assist in the titration of an antitoxin.

## COMPARISON OF RESULTS ON DIFFERENT GROUPS

Table 1 compares the results of the Dick tests at orphan asylums in Washington with the results in rural schools and in one group of children from one of the residential suburbs of Washington.

TABLE 1

School	Age	Sex	Number tested	Per cent positive
	Years			
Washington suburb.....	3-15	Mixed.....	75	77.3
Do.....	6-15	do.....	59	74.5
33 rural schools.....	4-21	do.....	1,147	72.5
Do.....	6-15	do.....	1,039	73.6
Episcopal Home.....	6-15	do.....	47	38.3
City Orphan Asylum.....	3-14	do.....	80	22.5
National Training School.....	13-20	Male.....	514	19.2
White.....	13-20	do.....	303	16.5
Colored.....	13-20	do.....	211	23.2
St. Vincent's Orphan Asylum.....	5-15	Female.....	148	8.1

Fifty per cent of the public school children tested by Doctor Nesbit (1) in Gary, Ind., gave positive Dick reactions.

The degree of susceptibility in the groups shown in Table 1 may be compared to some of the results obtained with Schick tests. Doctor Zingher (2), quoting Doctor Knight, of the State Department of Health of New Jersey, states that 85 per cent of rural school children were found Schick positive. Kidder (3) found that 76.8 per cent of the rural school children 5-14 years old in Vermont were Schick positive.

Zingher (4) found the following percentages Schick positive in various institutions:

	Per cent
New York Catholic Protectory.....	6.7
Institute of Mercy.....	10.5
Dominican Convent.....	14.8

Doctor White (5) found that the percentage of positive reactions rises as the density of population decreases. He reported three private schools with 95.6, 98.1, and 97 per cent Schick positive reactions.

#### TESTS ON RURAL SCHOOL CHILDREN

The Dick tests in rural schools noted in Table 1 were made on children in several of the schools in Fairfax County, Va. This county is in northern Virginia bordering the Potomac River. The population of Fairfax County is composed largely of farmers, with a sprinkling of Washington commuters. There are no large towns in the county. Fairfax Courthouse, the county seat, is located 14 miles from Washington and has a population of 600. The largest town, Falls Church, lies 6 miles from Washington and has about 2,500 inhabitants. Herndon, Vienna, and McLean, with 1,200, 800, and 800 inhabitants, respectively, are the only other towns of any size in the county.

Table 2 shows the ages of the children and the size of the reactions of the tests for all the children tested in the county.

TABLE 2

Age	+	++	+++	++++	+++++	Total positive	Negative <sup>1</sup>	Total tested	Per cent positive
4 years.....	1					1	1	2	50.0
5 years.....	3	1				4	0	4	100.0
6 years.....	31	22	10			63	17	80	78.7
7 years.....	38	37	13	1		89	30	119	74.8
8 years.....	33	30	17		1	81	19	100	81.0
9 years.....	35	47	18	2		102	35	137	74.5
10 years.....	35	36	9	1		81	31	112	72.3
11 years.....	42	33	12	3		90	30	120	75.0
12 years.....	35	29	6	4		74	27	101	73.3
13 years.....	31	38	7	1		77	43	120	64.2
14 years.....	26	27	5			58	24	82	70.7
15 years.....	21	25	4			50	18	68	73.5
16 years.....	13	15	4			32	17	49	65.3
17 years.....	7	8	5	1		21	15	36	58.3
18 years.....	2	3	1			6	4	10	60.0
19 years.....	1	2				3	2	5	60.0
20 years.....							1	1	00.0
21 years.....							1	1	00.0
Total.....	354	353	111	13	1	832	315	1,147	72.5

<sup>1</sup> + reactions show at least 1 diameter of 1 centimeter and less than 2 centimeters length. ++ reactions show an average diameter of 2 to 3 centimeters. +++ reactions show an average diameter of 3 to 4 centimeters. ++++ reactions show an average diameter of 4 to 5 centimeters. +++++ reactions show an average diameter of 5 to 6 centimeters.

<sup>2</sup> A reaction measuring less than 1 centimeter in any diameter.

From Table 2 it may be noted that age plays little part in the size of the reactions, although there is an apparent tendency for a larger proportion of the three plus reactions to fall in the earlier ages.

There is a slight decrease in susceptibility as the age increases. This is more readily seen in Table 3, in which the children are divided into two age groups, 6-10 and 11-15. As the children below 6 and over 15 years were few in number they have been omitted from this table.

TABLE 3

Age	+	++	+++	++++	+++++	Total positive	Negative	Total tested	Per cent positive
6-10 years.....	172	172	67	4	1	416	132	548	75.9
11-15 years.....	155	152	34	8	0	349	142	491	71.0
Total.....	327	324	101	12	1	765	274	1,039	73.6

In the above table the 3, 4, and 5 plus reactions form 17.3 per cent of the total positive reactions in the 6-10 age group and 12 per cent in the 11-15 age group. The percentage of 3, 4, and 5 plus reactions among males was 15.9 and, among females, 14.

Table 4 shows that a relatively greater immunity exists in the males than in the females, and that this difference increases with age.

TABLE 4

Age	Males		Females		Males (per cent positive)	Females (per cent positive)
	Positive	Negative	Positive	Negative		
4 years.....	1	1	---	---	50.0	---
5 years.....	4	---	---	---	100.0	---
6 years.....	36	9	27	8	80.0	77.1
7 years.....	49	18	40	12	73.1	70.9
8 years.....	43	10	38	9	81.1	80.9
9 years.....	17	22	15	13	68.1	80.8
10 years.....	43	18	38	13	70.1	74.5
11 years.....	51	18	39	12	73.9	76.4
12 years.....	41	16	31	11	71.9	75.0
13 years.....	39	24	34	19	61.9	66.6
14 years.....	25	13	13	11	65.8	75.0
15 years.....	21	10	21	8	67.7	78.3
16 years.....	11	9	21	8	55.0	72.4
17 years.....	5	10	16	5	33.3	75.1
18 years.....	1	2	5	2	33.3	71.4
19 years.....	2	2	---	---	50.0	100.0
20 years.....	---	---	---	1	---	00.0
21 years.....	---	1	---	---	00.0	---
Total.....	410	183	413	133	69.6	75.7

Doctor Nesbit (1), in testing the schools of Gary, Ind., found 49 per cent of the males and 52 per cent of the females Dick positive.

Table 5 shows the results in the various schools. The figures given for the cases of scarlet fever reported from the different communities are taken from the reports of the county health officer. In some instances there are notations taken from his report with regard to unreported cases.

TABLE 5.

School	Character of location	School enrollment	Cases of scarlet fever in community Jan., 1920, to Sept., 1925	Number tested	Per cent positive
Navy.....	Rural.....	22	17	8	100.0
Springfield.....	do.....	36	0	6	100.0
Franconia.....	do.....	60	13	19	91.7
Lincolnia.....	do.....	51	0	25	92.0
Caneron.....	do.....	38	16	9	88.8
Falls Church.....	Town, population, 2,500.....	311	17	51	86.2
Herndon.....	Town, population, 1,200.....	221	15	58	84.4
Forestville.....	Rural.....	170	2	61	83.6
Anandale.....	do.....	46	4	18	83.3
Bailey's.....	do.....	195	4	71	83.0
McLean.....	Town, population, 800.....	290	32	114	82.4
Idylwood.....	Rural.....	43	1	22	77.2
Oakton.....	do.....	225	36	71	77.0
Centreville.....	do.....	50	8	21	76.1
Floris.....	do.....	166	7	105	76.1
Groveton.....	do.....	60	0	33	72.8
Colchester.....	do.....	26	0	11	72.7
Fairfax Courthouse.....	Town, population, 600.....	165	49	51	72.5
Vienna.....	Town, population, 800.....	142	35	60	71.6
Snowden.....	Rural.....	61	7	16	68.7
Potter's Hall.....	do.....	78	15	43	62.7
Dracessville.....	do.....	56	0	40	62.5
Woodlawn.....	do.....	51	1	30	60.0
Clifton.....	Town, population, 300.....	134	7	50	50.0
Legato.....	Rural.....	33	0	9	55.5
Ponick.....	do.....	38	13	11	54.5
Bella Aire.....	do.....	18	12	13	53.0
Burke.....	do.....	71	10	42	50.0
Wakefield.....	do.....	21	5	8	50.0
Lorton.....	do.....	80	15	32	40.6
Fairview.....	do.....	30	10	14	35.7
Woodburn.....	do.....	25	12	6	33.3
Lebanon.....	do.....	50	9	16	25.0

<sup>1</sup> A few unreported cases.

<sup>2</sup> Many unreported cases.

## DICK TESTS ON CHILDREN OF THE SAME FAMILY

Rist and Weiss (6), Zingher (2), and others have noted the tendency of children of the same family to give similar reactions to the Schick test, and that in case of variations, as a rule, the younger children have shown positive reactions and the older negative, the reverse of this being very rare.

Table 6 shows that in response to the Dick test the children of the same family showed similar reactions in the majority of instances. In the families where disagreement in the reactions of different children were noted, it was by no means rare for a younger child to be negative and an older child positive.

TABLE 6.

		Number
1	Family groups of two or more children.....	263
2	Family groups showing all children Dick positive.....	151
3	Family groups showing all children Dick negative.....	30
4	Family groups showing younger children Dick positive and older children Dick negative.....	41
5	Family groups showing younger children Dick negative and older children Dick positive.....	25
6	Family groups of three or more children showing other combinations of reactions.....	16

<sup>1</sup> Age and sex distribution approximately the same in groups 4 and 5.

## COMPARISON OF TWO TOXINS

In addition to the standard Dick toxin used on all but 69 of the children a second injection was made at the same time with varying dilutions of toxins made at the Hygienic Laboratory. One of the Hygienic Laboratory toxins, known as NY5-391, was made with media which did not differ essentially from the media used by the Doctors Dick in the manufacture of their standard toxin. Cultures of scarlet fever streptococci other than the Dick strains were used for toxin production, part of a single batch of media being inoculated with strain NY5, and a second part with strain 391. The toxins from the two strains were mixed after filtration, the resulting mixture being referred to as NY5-391.

The standardization of toxin NY5-391 was carried to the point where it had been determined that a dilution of 1:14,250 was too weak and a dilution of 1:13,000 too strong. At a dilution of 1:13,500 this toxin and the Dick standard toxin gave 34 positive reactions and 19 negative each on 54 children. The remaining child gave a reaction measuring 10 by 14 mm. to the Dick standard toxin and 5 by 5 mm. to the NY5-391 toxin. The 34 children showing positive reactions to both toxins gave, on the average, a little stronger reaction to the Dick standard toxin.

Sixty-one children tested with the Dick standard toxin and with toxin NY5-391 in a dilution of 1:14,000 showed 51 positive and 10 negative, with no disagreeing reactions. In this school the

positive reactions to the two toxins were practically the same size, the Dick toxin reactions being a shade larger on the average.

Two schools, with a total of 48 children, tested on the same day with the Dick standard toxin and with toxin NY5-391, in a dilution of 1:14,000, gave 17 positive and 31 negative to the Dick standard toxin and 18 positive and 30 negative to toxin NY5-391. Of these 14 positive and 24 negative agreed, whereas 4 were positive to the Dick standard and negative to toxin NY5-391 and 6 were positive to toxin NY5-391 and negative to the Dick standard toxin. Where both tests were positive the reactions to the Dick standard averaged slightly larger.

The disagreeing reactions with the reactions of other members of the same families are given in Table 7.

TABLE 7

Child	Age	Sex	School	Reactions	
				Standard Dick toxin, dilution 1:1,750	Toxin NY5-391, dilution 1:14,000
	Years				
J. G. <sup>1</sup>	13	F	Lorton	7×10	0
S. G. <sup>1</sup>	9	M	do	0	0
S. D. <sup>2,4</sup>	8	M	do	10×11	5×5
F. D. <sup>1</sup>	9	F	do	8×9	0
H. D. <sup>1</sup>	11	M	do	0	0
F. S. <sup>5</sup>	8	M	do	12×20	6×6
G. B.	7	M	Lebanon	7×14	7×9
R. B. <sup>5</sup>	7	M	Lorton	8×9	12×17
E. B. <sup>5</sup>	9	M	do	0	0
A. B. <sup>5</sup>	11	M	do	0	0
H. K.	6	M	do	7×9	14×21
S. B. <sup>5</sup>	7	F	Lebanon	0	18×19
D. B. <sup>5</sup>	9	F	do	0	5×5
A. B. <sup>5</sup>	11	F	do	0	0
E. M. <sup>7</sup>	9	F	do	0	8×10
S. M. <sup>7</sup>	10	F	do	0	8×8
J. M. <sup>7</sup>	6	F	do	0	0
A. S.	13	M	do	0	8×11
P. H.	14	F	do	0	8×10

<sup>1</sup> Same family.

<sup>2</sup> History of scarlet fever in 1922; see Table 8.

<sup>3</sup> History of scarlet fever in 1921; see Table 8.

<sup>4</sup> Same family.

<sup>5</sup> Same family.

<sup>6</sup> Same family.

The results shown in Table 7 are at least suggestive of a difference in the two toxins used (7-8).

#### RESULTS OF TESTS MADE ON PERSONS WHO GIVE HISTORIES OF HAVING HAD SCARLET FEVER

At the time the tests were made each individual was asked if he or she had ever had scarlet fever. The replies in many instances were vague; a great majority were sure they had never had scarlet fever and a few stated that they had had the disease. It is interesting to note that in the Fairfax County schools of those children who stated that they had had scarlet fever 17 were positive on test and 5 negative.



The reactions of the 22 who gave a fairly definite history of scarlet fever are shown in Table 8.

TABLE 8

School	Case	Age	Sex	Year of scarlet-fever attack	Dick test reaction	
					Positive	Negative
Clifton	B. R.	14	F	1923	<sup>1</sup> 16×21	-----
Colchester	M. S.	15	F	1916	10×11	-----
Fairfax	G. P.	10	M	<sup>4</sup> 1922	19×19	-----
Do	R. S.	13	F	1923	-----	6×6
Floris	A. A.	17	F	1909	-----	0
Do	A. H.	17	F	1918	15×27	-----
Groveton	E. T. <sup>2</sup>	14	F	1922	12×13	-----
Do	N. T. <sup>3</sup>	10	F	1922	11×13	-----
Do	T. R.	14	M	1922	15×20	-----
Lorton	S. D. <sup>3</sup>	8	M	<sup>4</sup> 1922	10×11	-----
Do	F. S. <sup>3</sup>	8	M	<sup>4</sup> 1921	12×20	-----
McLean	M. D.	12	F	1923	27×40	-----
Do	L. A.	13	M	1915	-----	0
Oakton	N. M. <sup>3</sup>	10	F	<sup>4</sup> 1923	12×14	-----
Do	E. M. <sup>3</sup>	11	M	<sup>4</sup> 1923	12×13	-----
Do	H. R.	15	F	<sup>4</sup> 1921	16×23	-----
Do	B. S.	14	F	<sup>4</sup> 1921	-----	5×5
Do	N. F.	18	F	1919	18×21	-----
Vienna	J. P. <sup>6</sup>	6	M	<sup>4</sup> 1923	14×22	-----
Do	E. P. <sup>6</sup>	8	F	1923	16×26	-----
Do	G. F.	7	F	1923	18×26	-----
Do	M. S.	10	M	<sup>4</sup> 1921	-----	5×5

<sup>1</sup> Reactions expressed in millimeters.

<sup>2</sup> Same family.

<sup>3</sup> See Table VII.

<sup>4</sup> Diagnosis confirmed by the county health officer and case placed under quarantine.

<sup>5</sup> Same family.

<sup>6</sup> Same family.

The results for the rural schools shown in Table 8 may be compared with the results obtained in the groups tested in the city of Washington and set forth in Table 9.

TABLE 9

Year of scarlet fever attack	School	Number of cases	Dick positive	Dick negative
1907	N. T. S. <sup>1</sup>	1	1	0
1909	do	1	1	0
1910	do	1	0	1
1911	do	1	0	1
1912	do	1	0	1
1913	do	4	1	3
1914	do	2	0	2
1915	do	2	0	2
1916	do	2	0	2
1917	do	4	0	4
1917	Suburb <sup>2</sup>	1	1	0
1918	N. T. S.	2	0	2
1919	E. H. <sup>3</sup>	1	0	1
1920	N. T. S.	3	0	3
1921	do	2	1	1
1921	E. H.	1	0	1
1921	St. V. <sup>4</sup>	21	0	21
1922	N. T. S.	4	1	3
1923	do	2	0	2
1923	Suburb	2	1	1
1924	N. T. S.	5	0	5
1924	E. H.	1	0	1
1924	W. C. O. A. <sup>5</sup>	10	1	9
1925	St. V.	3	0	3

<sup>1</sup> National Training School for Boys.

<sup>2</sup> Residential suburb of Washington.

<sup>3</sup> Episcopal Home.

<sup>4</sup> St. Vincent's Orphan Asylum.

<sup>5</sup> Washington City Orphan Asylum.

Table 10 gives in detail the positive reactions noted in Table 9.

TABLE 10

Year of scarlet-fever attack	School	Case	Age	Sex	Dick test reaction
1907.....	N. T. S.....	R. C.....	18	M	10X12
1909.....	.....do.....	F. Q.....	20	M	12X17
1913.....	.....do.....	J. H.....	20	M	15X14
1921.....	.....do.....	H. A.....	17	M	17X15
1922.....	.....do.....	E. T.....	14	M	10X9
1917.....	Suburb.....	J. A.....	9	F	22X25
1923.....	.....do.....	E. T.....	9	F	7X11
1924.....	W. C. O. A.....	C. D.....	8	F	10X10

The high percentage of positive Dick reactions found in Fairfax County children giving a history of previous scarlet fever is compared to the low percentage found in Washington institutions. This difference may possibly be explained by difference in degree and frequency of exposure in city and rural children, or the difference in the two groups may be regarded as lending some weight to the suggestion that somewhat different toxins are produced by different strains of scarlet fever streptococci.

## SUMMARY

1. Dick tests made on rural and suburban school children and children in city institutions gave a higher percentage of positive reactions among the rural and suburban groups.

2. A relatively greater immunity was found to exist in males than in females, and this difference was found to increase with age.

3. When two or more children from one family were tested there was a tendency for the reactions on the different children to agree. When disagreement occurred, the younger children were more often positive and the older children more often negative although the reverse was not rare.

4. Differences in reactions caused by toxins produced by different streptococci of scarlatinal origin are noted, with the suggestion that different strains of scarlet fever streptococci may produce different toxins.

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# SUMMARY OF PROVISIONAL BIRTH, DEATH, AND INFANT-MORTALITY FIGURES IN THE BIRTH-REGISTRATION AREA, 1925<sup>1</sup>

The Department of Commerce announces that birth rates for 1925 were lower than for 1924 in 26 of the 30 States for which figures for the two years are shown in the following summary. The highest 1925 birth rate (28.8 per 1,000 population) is shown for North Carolina and the lowest (15.1) is for Montana.

Death rates for 1925 were higher than for 1924 in 16 of the 30 States shown for both years. The highest 1925 death rate (14.6 per 1,000 population) is shown for Vermont and the lowest (7.7) for Montana and North Dakota.

Infant-mortality rates for 1925 were generally higher than those for 1924, 19 of the 30 States showing higher rates in 1925. The highest 1925 infant-mortality rate (90.4) appears for Maryland and the lowest (51.2) for Oregon. Infant-mortality rates are shown for both years for 48 cities of 100,000 population or more in 1920. For 24 of these cities the 1925 infant-mortality rates were higher than those for the previous year. The highest 1925 infant-mortality rate among these cities (96.7) was for Norfolk and the lowest (44.9) for Seattle.

*Births and deaths (exclusive of stillbirths), with rates per 1,000 population, and infant mortality, in the birth registration area, 1925*

Area	Number, 1925			Rate per 1,000 population				Deaths under 1 year per 1,000 births	
	Births	Deaths		Births		Deaths		1925	1924
		All ages	Under 1 year	1925	1924	1925	1924		
Total .....	1,727,467	955,074	123,512	21.2	22.6	11.7	11.8	71.5	71.0
STATES									
California.....	85,096	56,762	5,850	20.4	22.2	13.6	14.5	68.7	67.1
Connecticut.....	29,680	17,682	2,180	18.9	21.1	11.3	11.3	73.5	68.7
Delaware.....	4,674	3,115	422	19.7	19.0	13.1	13.0	90.3	95.0
Florida.....	29,042	16,872	2,188	23.0	21.8	13.4	12.9	75.3	81.8
Illinois.....	135,439	81,597	9,826	19.1	19.9	11.5	11.2	72.5	71.0
Indiana.....	64,342	38,632	4,370	20.8	22.3	12.5	12.2	67.9	65.2
Iowa.....	47,760	24,263	2,672	19.7	20.3	10.0	9.8	55.9	54.9
Kansas.....	36,716	18,521	2,261	20.3	21.0	10.2	9.9	61.6	59.0
Kentucky.....	63,002	28,110	4,437	25.1	26.9	11.2	10.8	70.4	64.6
Maine.....	17,372	10,792	1,332	22.1	23.7	13.7	13.8	76.7	80.8
Maryland.....	33,734	21,625	3,049	21.6	22.8	13.9	13.8	90.4	86.2
Michigan.....	59,022	49,322	7,331	23.1	24.1	11.5	11.6	74.5	72.3
Minnesota.....	58,776	28,430	3,246	20.6	22.0	9.7	9.7	60.4	56.7
Mississippi.....	45,183	22,138	3,094	25.2	24.4	12.4	11.8	68.5	71.3
Montana.....	10,185	5,159	709	18.1	16.2	7.7	7.9	69.6	66.9
Nebraska.....	28,739	12,371	1,673	21.0	22.4	9.0	9.2	54.4	55.3
New Hampshire.....	9,404	6,565	717	20.8	22.5	14.5	14.2	76.2	79.5
New Jersey.....	74,181	42,193	5,112	20.6	22.3	11.7	11.9	68.9	70.0
New York.....	229,714	142,491	15,453	20.6	21.1	12.8	12.7	67.3	69.2
North Carolina.....	80,882	31,471	6,387	28.8	32.2	11.2	12.2	79.0	82.3

\* Birth registration area exclusive of Massachusetts, Utah, and West Virginia for both years. The 1925 data for Massachusetts and Utah are incomplete; West Virginia was not in the registration area in 1924.

<sup>1</sup> Exclusive of Massachusetts and Utah, from which complete transcripts for 1925 have not been received.

*Births and deaths (exclusive of stillbirths), with rates per 1,000 population, and infant mortality, in the birth registration area, 1925—Continued*

Area	Number, 1925			Rate per 1,000 population				Deaths under 1 year per 1,000 births	
	Births	Deaths		Births		Deaths		1925	1924
		All ages	Under 1 year	1925	1924	1925	1924		
STATES—Continued									
North Dakota.....	13,235	4,960	1,011	20.6	22.2	7.7	7.6	76.4	66.7
Ohio.....	126,877	73,605	8,841	19.6	21.2	11.4	11.2	69.7	66.6
Oregon.....	15,425	9,603	789	17.9	18.8	11.1	11.4	51.2	53.6
Pennsylvania.....	214,916	115,664	17,633	22.7	24.2	12.2	12.3	82.0	78.5
Rhode Island.....	14,400	8,225	1,048	21.2	22.4	12.1	12.5	72.8	79.9
Vermont.....	7,487	5,133	545	21.2	21.0	14.6	13.8	72.8	70.2
Virginia.....	61,199	29,276	4,935	24.0	26.5	11.8	12.0	80.6	77.0
Washington.....	24,721	15,277	1,396	16.4	17.4	10.1	10.0	56.5	56.2
West Virginia.....	45,311	17,153	3,615	27.7	( <sup>b</sup> )	10.5	( <sup>b</sup> )	79.8	( <sup>b</sup> )
Wisconsin.....	57,324	29,285	3,845	20.1	21.4	10.3	10.2	67.1	64.7
Wyoming.....	4,833	1,891	566	21.1	24.1	8.2	9.5	63.9	64.3
REGISTRATION CITIES									
California:									
Alameda.....	526	319	28	16.5	17.1	10.0	10.1	53.2	50.4
Bakersfield.....	705	368	61	30.0	31.7	16.5	19.2	86.5	95.2
Berkeley.....	893	628	44	18.5	14.1	9.5	9.8	49.3	50.3
Eureka.....	429	275	23	31.7	30.8	20.3	19.1	53.6	58.1
Fresno.....	1,234	531	86	21.1	24.9	9.1	9.9	69.7	60.8
Glendale.....	713	523	29	33.5	39.8	24.6	24.8	40.7	47.8
Long Beach.....	2,133	1,261	107	23.4	27.8	13.8	14.4	50.2	40.6
Los Angeles.....	18,691	11,474	1,246	( <sup>c</sup> )	( <sup>c</sup> )	( <sup>c</sup> )	( <sup>c</sup> )	66.7	65.6
Oakland.....	4,490	2,586	233	17.7	18.4	10.2	11.2	51.9	65.5
Pasadena.....	1,289	824	59	22.7	24.9	14.5	15.3	45.8	45.3
Pomona.....	352	218	18	22.9	23.0	14.2	13.8	51.1	69.6
Richmond.....	371	123	18	16.5	16.2	5.5	6.0	48.5	60.2
Riverside.....	575	388	53	( <sup>c</sup> )	26.3	( <sup>c</sup> )	17.8	92.2	91.4
Sacramento.....	2,040	1,362	160	28.2	28.6	19.3	17.6	78.5	69.7
San Bernardino.....	879	520	79	38.5	35.9	22.8	23.3	80.9	101.0
San Diego.....	2,458	1,770	135	23.2	23.1	16.7	17.3	54.9	54.7
San Francisco.....	8,635	7,397	479	15.5	16.5	13.3	13.6	55.5	55.7
San Jose.....	886	499	41	20.3	20.6	11.5	11.1	46.3	52.1
Santa Ana.....	585	272	35	30.0	28.7	14.0	17.2	59.8	111.3
Santa Barbara.....	551	339	42	22.9	20.4	14.1	12.1	76.2	63.4
Santa Cruz.....	240	198	10	22.0	21.4	18.1	19.3	41.7	29.9
Santa Monica.....	596	361	36	30.7	33.2	18.6	21.2	60.4	54.8
Stockton.....	896	582	64	18.9	20.2	12.3	13.4	71.4	64.4
Vallejo.....	235	171	15	8.8	8.8	6.4	7.5	63.8	66.7
Venice.....	125	107	8	8.6	10.2	7.4	9.1	64.0	71.4
Connecticut:									
Arsonia.....	284	156	27	14.9	16.0	8.2	8.2	95.1	116.3
Bridgport.....	3,060	1,541	164	( <sup>c</sup> )	( <sup>c</sup> )	( <sup>c</sup> )	( <sup>c</sup> )	53.6	55.9
Bristol.....	593	220	49	24.1	26.2	8.9	8.9	82.6	79.6
Danbury town.....	521	367	48	23.3	23.2	16.4	14.3	92.1	63.8
Derby.....	421	189	34	33.7	35.9	15.1	14.6	80.8	72.0
East Hartford town.....	145	93	10	10.6	11.2	6.8	7.5	69.0	67.1
Enfield town.....	281	109	23	21.9	23.4	8.5	10.7	81.9	67.0
Fairfield town.....	179	95	10	12.3	15.7	6.6	7.8	55.9	73.1
Greenwich town.....	457	264	24	18.0	19.2	10.4	10.6	52.5	69.3
Hartford.....	3,943	2,051	284	24.6	25.9	12.8	11.6	72.0	61.8
Manchester town.....	451	213	30	21.4	22.2	10.1	8.7	66.5	52.5
Moriden town.....	754	466	42	30.3	19.4	12.8	12.4	58.7	67.3
Middletown town.....	575	550	33	25.1	26.3	24.0	22.2	57.4	70.1
Milford town.....	132	136	7	9.8	12.2	10.1	9.3	53.0	63.7
Naugatuck.....	131	97	6	8.0	10.4	5.9	5.5	45.8	65.5
New Britain.....	1,646	632	170	24.2	24.8	9.3	9.6	103.3	77.1
New Haven.....	3,818	2,172	252	21.3	22.9	12.1	12.2	66.0	72.1
New London.....	739	424	51	25.4	27.8	14.6	14.5	69.0	59.3
Norwalk.....	642	406	35	21.6	24.0	13.7	12.5	54.5	58.2
Norwich town.....	768	501	68	25.2	27.2	16.4	17.3	84.5	70.9

<sup>a</sup> Not in the registration area in 1924.

<sup>c</sup> Population not estimated.

*Births and deaths (exclusive of stillbirths), with rates per 1,000 population, and infant mortality, in the birth registration area, 1925—Continued*

Area	Number, 1925			Rate per 1,000 population				Deaths under 1 year per 1,000 births	
	Births	Deaths		Births		Deaths		1925	1924
		All ages	Under 1 year	1925	1924	1925	1924		
REGISTRATION CITIES—continued									
Connecticut—Continued.									
Orange town.....	389	263	18	19.8	22.2	13.6	14.0	46.3	66.0
Stamford town.....	1,120	573	82	24.1	26.0	12.1	11.8	73.2	67.2
Stonington town.....	157	109	5	11.5	16.0	10.0	9.1	31.8	54.1
Stratford town.....	207	119	9	12.9	15.2	7.4	3.8	43.5	72.6
Torrington town.....	485	198	32	18.6	20.8	7.6	9.5	56.0	56.6
Wallingford town.....	140	123	8	11.2	14.9	10.2	8.4	37.1	43.2
Waterbury.....	2,203	1,083	183	(*)	(*)	(*)	(*)	82.9	77.0
Windham town.....	321	199	24	22.2	24.1	13.7	12.4	74.8	49.1
Delaware:									
Wilmington.....	2,345	1,435	204	19.2	19.2	11.8	11.7	87.0	90.9
District of Columbia:									
Washington.....	9,107	7,015	796	17.7	19.1	13.6	13.5	87.5	76.0
Florida:									
Jacksonville.....	2,507	1,947	197	26.3	25.1	20.4	19.1	78.6	93.2
Key West.....	317	211	29	23.1	25.6	15.4	16.0	91.5	89.9
Miami.....	2,421	1,398	242	34.7	25.6	20.0	14.1	100.0	101.7
Pensacola.....	669	469	83	26.1	28.0	18.5	19.0	124.1	99.0
St. Petersburg.....	791	652	64	29.5	19.6	21.3	19.3	80.9	88.9
Tampa.....	2,251	1,271	174	23.8	20.6	13.4	10.9	77.3	61.8
Illinois:									
Alton.....	655	390	60	24.4	25.7	11.6	14.6	91.6	91.2
Aurora.....	1,025	527	73	25.5	25.3	13.1	12.6	76.1	54.9
Belleville.....	504	345	22	14.7	17.5	12.8	12.5	43.7	70.6
Berwyn.....	303	164	24	16.1	15.9	8.7	7.1	79.2	52.1
Bloomington.....	597	433	47	19.6	18.1	14.2	13.5	78.7	73.4
Blue Island.....	386	180	31	20.3	20.8	13.7	11.1	80.3	72.9
Cairo.....	224	301	29	14.1	15.9	10.3	17.7	120.5	141.2
Canton.....	236	190	25	21.4	21.7	17.3	14.6	105.9	71.1
Centralia.....	273	156	14	19.4	24.7	11.1	12.0	51.3	91.2
Champaign.....	409	236	38	22.5	21.8	13.0	12.1	92.9	92.3
Chicago.....	59,639	34,318	4,459	19.9	20.0	11.5	11.2	74.8	76.8
Chicago Heights.....	284	231	45	17.4	10.5	10.4	9.2	117.2	82.9
Cicero.....	595	349	50	9.6	10.4	5.6	4.8	84.0	87.8
Danville.....	837	571	88	22.6	21.1	15.4	14.3	105.1	75.5
Decatur.....	1,126	660	74	20.9	20.6	12.3	11.5	65.7	77.0
East St. Louis.....	1,454	850	138	20.4	20.6	12.5	11.9	94.9	105.7
Elgin.....	635	705	31	19.0	22.1	21.1	21.5	48.8	58.0
Evanston.....	1,523	579	66	34.8	34.7	13.0	11.2	43.2	43.2
Forest Park.....	92	90	3	7.0	6.3	6.9	9.0	32.6	112.5
Freeport.....	487	308	26	23.5	24.6	14.9	15.2	63.4	40.5
Galesburg.....	572	340	37	23.0	24.0	13.7	14.0	61.7	64.2
Granite City.....	539	224	61	30.8	32.3	12.3	12.2	109.1	83.2
Herrin.....	255	164	26	19.1	26.4	12.3	11.1	102.0	94.1
Jacksonville.....	337	511	23	21.2	20.1	32.1	32.6	68.2	71.9
Joliet.....	747	527	71	18.4	19.9	13.0	11.9	95.0	91.2
Kankakee.....	465	248	36	25.2	25.8	13.4	14.0	77.4	74.5
Kewanee.....	379	199	30	19.2	18.5	10.1	10.0	79.2	91.9
La Salle.....	310	161	29	22.3	25.3	11.6	11.7	93.5	77.6
Lincoln.....	238	266	19	19.1	21.7	21.4	16.0	79.8	67.2
Mattoon.....	330	199	27	22.4	25.3	13.5	15.7	81.8	89.9
Maywood.....	152	123	14	10.7	12.8	8.6	7.4	92.1	67.8
Moline.....	643	347	27	19.0	18.9	10.2	9.3	42.0	61.9
Murphysboro.....	139	295	21	15.9	16.1	23.6	12.0	105.5	66.3
Oak Park.....	2,280	757	79	44.3	43.5	14.7	14.4	34.6	20.4
Ottawa.....	281	161	21	21.3	27.1	13.9	13.6	74.7	68.0
Pekin.....	320	154	23	24.0	24.0	11.6	12.5	71.9	66.9
Peoria.....	1,517	1,126	109	18.6	16.3	13.8	13.7	71.9	84.5
Quincy.....	798	585	73	20.4	20.4	14.9	14.3	91.5	64.0
Rock Island.....	369	325	30	10.0	11.5	8.1	8.8	75.2	51.1
Rockford.....	1,578	683	83	20.6	21.2	8.9	9.1	52.6	57.4

\* Population not estimated.

*Births and deaths (exclusive of stillbirths), with rates per 1,000 population, and infant mortality, in the birth registration area, 1925—Continued*

Area	Number, 1925			Rate per 1,000 population				Deaths under 1 year per 1,000 births	
	Births	Deaths		Births		Deaths		1925	1924
		All ages	Under 1 year	1925	1924	1925	1924		
REGISTRATION CITIES—continued									
Illinois—Continued.									
Springfield.....	1,394	1,121	119	21.8	22.5	17.5	15.5	85.4	69.4
Streator.....	369	227	33	26.5	30.6	15.1	14.8	82.7	45.7
Urbana.....	207	147	16	18.2	18.8	13.0	13.2	77.3	60.7
Waukegan.....	413	213	26	18.8	20.4	9.7	10.2	63.0	68.6
Indiana:									
Anderson.....	727	401	47	21.5	21.1	11.8	12.1	64.6	68.8
Bloomington.....	435	211	45	34.6	35.1	16.8	13.7	103.4	52.8
Clinton.....	189	146	23	13.9	16.8	10.7	8.4	121.7	122.2
Crawfordsville.....	187	137	13	17.8	18.6	13.0	16.4	69.5	35.9
East Chicago.....	1,073	409	121	23.5	24.4	9.0	10.3	112.8	139.5
Elkhart.....	604	344	41	22.3	23.4	12.7	11.1	67.0	54.7
Elwood.....	284	138	17	26.3	24.2	12.8	11.7	59.9	83.7
Evansville.....	1,640	1,161	110	17.5	19.5	12.4	11.0	67.1	65.7
Fort Wayne.....	2,381	1,151	152	24.3	25.2	11.8	11.1	63.8	50.8
Frankfort.....	242	185	20	18.5	23.2	14.2	12.2	82.6	64.0
Gary.....	1,998	1,030	190	26.0	27.4	13.4	13.0	95.1	87.2
Hammond.....	1,275	510	97	25.3	27.0	10.1	9.1	76.1	72.5
Huntington.....	345	185	32	21.7	23.8	11.6	11.3	92.8	50.8
Indianapolis.....	6,890	4,951	479	19.2	20.9	13.8	13.1	69.5	77.1
Jeffersonville.....	262	180	21	25.9	23.6	17.8	15.3	80.2	105.0
Kokomo.....	773	384	58	21.0	22.5	10.4	10.6	75.0	77.0
La Porte.....	403	232	27	23.0	24.7	13.2	11.9	67.0	35.5
Lafayette.....	681	461	50	28.6	29.1	19.4	19.0	73.4	53.9
Logansport.....	397	261	26	17.2	18.7	11.3	11.0	65.5	44.5
Marion.....	619	320	35	19.8	21.0	12.2	11.9	67.4	64.6
Michigan City.....	555	293	39	27.3	29.7	14.4	14.6	70.3	70.2
Mishawaka.....	753	262	60	45.2	45.9	15.7	15.5	79.7	57.1
Muncie.....	819	473	58	19.3	21.3	11.1	12.1	70.8	83.7
New Albany.....	645	322	25	23.7	23.4	14.0	13.7	45.9	42.7
New Castle.....	349	181	24	20.6	19.1	10.7	9.3	68.8	73.0
Peru.....	259	155	22	30.4	23.1	12.2	12.7	84.9	75.3
Richmond.....	445	331	33	14.6	16.2	10.9	10.2	74.2	57.4
South Bend.....	2,340	1,068	145	29.2	30.9	12.1	12.0	62.0	64.3
Terre Haute.....	1,272	1,029	130	17.9	21.0	14.5	13.9	102.2	77.9
Vincennes.....	445	301	42	24.4	24.8	10.5	16.7	94.4	91.5
Whiting.....	211	81	26	17.4	21.5	6.7	7.0	123.2	82.7
Iowa:									
Beacon.....	243	147	13	19.0	18.6	11.5	10.6	53.5	60.4
Burlington.....	533	367	35	20.2	19.2	14.7	12.9	65.7	35.9
Cedar Rapids.....	918	541	55	18.2	18.0	10.7	10.4	59.9	56.1
Clinton.....	435	401	38	16.5	17.0	15.2	13.3	87.4	70.2
Council Bluffs.....	1,007	528	85	25.3	23.8	13.3	13.4	84.4	100.1
Davenport.....	953	696	51	18.2	17.0	13.3	12.5	53.5	64.4
Des Moines.....	3,119	1,518	188	22.1	22.1	10.7	10.8	60.3	57.3
Dubuque.....	906	618	69	22.1	21.1	15.1	14.7	76.2	71.9
Fort Dodge.....	457	272	34	21.1	23.1	12.5	10.2	74.4	66.7
Fort Madison.....	263	173	35	23.4	23.7	15.4	14.3	133.1	74.0
Iowa City.....	466	458	44	30.5	31.5	30.0	25.1	94.4	59.7
Keokuk.....	347	273	20	23.9	24.1	18.8	17.3	57.0	77.1
Marshalltown.....	393	311	32	23.3	20.1	18.4	17.2	81.4	44.5
Mason City.....	537	232	32	23.7	23.2	10.2	11.4	59.6	84.6
Muscatine.....	318	230	16	18.9	18.2	14.0	14.9	50.3	72.1
Ottumwa.....	593	353	40	22.5	22.5	13.4	13.4	67.5	71.8
Sioux City.....	1,788	905	159	23.4	23.5	11.8	11.1	88.9	67.7
Waterloo.....	746	370	37	20.3	20.3	10.2	10.6	49.6	72.6
Kansas:									
Arkansas City.....	381	185	23	27.2	27.3	13.2	14.3	60.4	80.4
Atchison.....	273	205	17	18.2	16.9	13.6	13.0	62.3	60.5
Chanute.....	204	139	9	20.8	27.0	14.1	14.5	44.1	74.9
Coffeyville.....	355	168	33	21.9	26.0	10.4	10.9	93.0	55.8
El Dorado.....	242	110	15	25.5	31.0	11.6	10.5	69.0	43.3

*Births and deaths (exclusive of stillbirths), with rates per 1,000 population, and infant mortality, in the birth registration area, 1925—Continued*

Area	Number, 1925			Rate per 1,000 population				Deaths under 1 year per 1,000 births	
	Births	Deaths		Births		Deaths		1925	1924
		All ages	Under 1 year	1925	1924	1925	1924		
REGISTRATION CITIES—continued									
Kansas—Continued.									
Emporia.....	303	215	22	24.7	30.4	17.6	17.2	72.6	81.5
Fort Scott.....	262	213	14	22.3	24.2	18.1	17.7	53.4	60.5
Hutchinson.....	498	293	29	19.2	20.4	11.3	10.1	58.2	53.6
Independence.....	219	131	13	20.1	27.5	12.0	12.6	50.4	65.8
Kansas City.....	2,685	1,653	235	23.1	22.7	14.2	13.2	87.5	94.1
Lawrence.....	235	184	9	19.0	21.8	14.9	15.4	38.3	78.1
Leavenworth.....	300	265	35	14.4	14.9	12.7	14.5	116.7	88.8
Parsons.....	290	221	16	19.5	21.1	14.9	11.7	55.2	41.1
Pittsburg.....	353	174	20	18.4	24.2	9.1	11.8	56.7	43.4
Salina.....	354	199	27	22.7	26.9	12.7	14.0	76.3	64.6
Topeka.....	1,280	796	89	23.1	24.9	14.4	14.4	69.5	70.9
Wichita.....	2,099	1,093	140	23.8	22.8	12.4	11.7	66.7	57.7
Kentucky:									
Ashland.....	875	375	79	35.8	29.9	15.3	11.9	90.3	86.6
Covington.....	1,503	914	99	25.8	21.0	15.7	14.1	65.9	64.5
Henderson.....	259	217	30	20.6	22.2	17.3	18.1	115.8	93.5
Lexington.....	998	978	81	21.3	22.7	20.9	23.9	81.2	100.6
Louisville.....	6,088	4,302	494	19.9	21.2	14.1	13.5	81.1	71.0
Newport.....	559	332	52	19.1	17.5	11.3	10.5	93.0	80.7
Owensboro.....	514	343	54	24.7	26.2	15.6	17.1	99.3	94.4
Paducah.....	511	473	71	19.9	20.5	18.3	16.3	144.0	115.7
Maine:									
Auburn.....	277	211	24	15.3	14.4	11.7	10.5	86.6	85.6
Augusta.....	319	304	26	21.8	24.9	20.8	22.8	81.5	96.7
Bangor.....	575	494	43	21.6	21.2	18.5	19.1	71.8	67.7
Bath.....	166	132	18	9.4	12.7	7.4	8.8	108.4	100.9
Biddeford.....	592	282	45	31.9	36.9	15.2	11.7	76.0	85.3
Lewiston.....	971	601	118	27.9	30.6	17.3	16.6	121.1	117.8
Portland.....	1,627	1,118	105	21.6	21.8	14.8	14.3	64.5	79.6
Sanford town.....	401	130	22	34.5	39.2	11.2	9.7	54.9	69.1
Waterville.....	431	185	23	23.9	31.8	12.8	14.4	53.4	92.7
Maryland:									
Annapolis.....	253	146	19	20.0	21.3	11.6	11.9	75.1	79.8
Baltimore.....	17,041	11,648	1,394	21.4	22.2	14.6	14.4	81.8	84.9
Cumberland.....	908	509	76	26.9	26.8	15.1	13.9	83.7	79.0
Frederick.....	341	258	28	28.6	26.8	21.4	20.5	81.4	93.5
Hagerstown.....	658	360	59	21.0	22.1	11.5	13.0	89.7	79.3
Michigan:									
Adrian.....	295	202	23	23.6	24.4	16.1	15.6	78.0	43.0
Alpena.....	294	172	23	26.5	31.9	15.5	14.9	78.2	70.6
Ann Arbor.....	719	708	76	32.4	31.7	31.9	29.7	105.7	98.0
Battle Creek.....	875	587	83	20.7	19.4	13.9	13.2	94.9	80.1
Bay City.....	1,064	632	71	21.8	23.1	12.9	12.6	66.7	49.8
Benton Harbor.....	374	213	29	26.8	30.5	15.3	16.3	77.5	84.1
Detroit.....	31,953	13,587	2,466	25.7	25.1	10.9	10.8	77.2	78.9
Escanaba.....	454	213	29	34.6	35.6	16.3	14.8	83.9	70.8
Flint.....	3,078	1,007	229	23.6	26.5	7.7	7.7	74.4	68.9
Grand Rapids.....	3,631	1,767	249	23.6	22.3	11.5	10.3	68.6	52.9
Hamtramck.....	1,428	353	106	17.5	19.7	4.3	5.4	74.2	108.2
Highland Park.....	1,597	559	81	22.1	22.9	7.7	8.2	52.6	71.7
Holland.....	323	111	17	24.6	26.5	8.4	10.0	52.6	58.1
Ironwood.....	371	152	24	21.3	23.2	8.7	11.4	61.7	121.2
Ishpeming.....	216	131	13	20.6	25.5	12.5	11.5	60.2	58.0
Jackson.....	1,099	723	95	19.0	20.2	12.5	11.6	86.4	61.7
Kalamazoo.....	1,262	941	92	23.5	20.4	17.6	16.6	72.9	54.0
Lansing.....	1,644	747	135	23.2	21.3	10.6	10.7	82.1	74.7
Marquette.....	385	188	32	23.7	27.7	14.0	14.0	81.1	78.8
Monroe.....	374	150	29	26.3	24.2	10.5	11.4	77.5	144.1
Muskegon.....	1,136	510	104	26.4	24.0	11.8	12.2	91.5	70.8
Owosso.....	367	219	28	25.8	23.8	15.4	13.6	76.3	63.3
Pontiac.....	1,079	671	81	22.3	22.8	14.1	14.3	76.5	92.8
Port Huron.....	727	399	75	24.3	24.1	13.3	14.3	108.2	78.1

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Area	Number, 1925			Rate per 1,000 population				Deaths under 1 year per 1,000 births	
	Births	Deaths		Births		Deaths		1925	1924
		All ages	Under 1 year	1925	1924	1925	1924		
REGISTRATION CITIES—continued									
Michigan—Continued.									
Saginaw.....	1,562	923	128	21.7	23.2	12.8	12.5	81.9	75.5
Sault Ste. Marie.....	296	175	34	24.5	27.4	14.5	11.7	114.9	63.4
Traverse City.....	231	332	15	21.1	17.2	30.4	30.2	64.9	69.1
Wyandotte.....	680	302	62	27.8	28.0	12.3	9.0	91.2	80.9
Minnesota:									
Austin.....	316	113	18	26.5	24.2	9.5	9.8	57.0	67.9
Duluth.....	2,244	1,114	140	20.3	22.3	10.1	9.6	66.4	63.8
Faultbault.....	328	222	14	26.7	24.1	18.1	16.6	42.7	48.3
Hubbing.....	519	177	32	28.9	31.4	9.9	8.0	61.7	56.3
Mankato.....	428	223	30	31.3	28.8	16.3	14.8	70.1	44.9
Minnneapolis.....	9,438	4,929	571	22.2	23.4	11.6	11.2	60.5	53.5
Rochester.....	424	868	26	24.9	23.0	50.9	50.7	61.3	55.6
St. Cloud.....	585	252	54	31.0	34.3	13.4	11.6	92.3	54.1
St. Paul.....	5,926	3,121	344	24.1	25.2	12.7	12.0	58.6	56.5
Virginia.....	287	122	23	17.9	21.1	7.6	7.7	80.1	60.4
Winona.....	452	208	14	22.2	25.3	16.7	13.6	32.4	55.0
Mississippi:									
Biloxi.....	402	179	31	32.0	31.1	14.2	16.6	77.1	112.6
Columbus.....	238	210	23	21.0	19.2	18.5	15.4	96.6	93.0
Greenville.....	323	362	39	21.3	22.4	23.9	23.9	120.7	95.5
Hattiesburg.....	403	262	42	28.6	30.5	18.6	16.5	104.2	75.3
Jackson.....	774	615	63	32.7	31.4	26.0	21.3	81.4	135.5
Laurel.....	608	271	41	38.7	38.8	17.2	16.8	67.4	47.9
Meridian.....	583	458	40	24.0	24.4	18.8	18.0	68.6	96.6
Natchez.....	220	277	26	16.8	20.6	21.2	21.6	118.2	108.6
Vicksburg.....	435	651	43	24.1	26.0	30.0	38.7	98.9	74.8
Montana:									
Anaconda.....	251	140	15	20.0	18.0	11.2	9.9	50.8	67.3
Billings.....	446	211	42	24.5	22.0	11.7	12.3	94.2	93.8
Butte.....	662	597	59	15.4	14.2	13.9	13.7	89.1	87.5
Great Falls.....	689	276	40	23.1	25.5	9.3	10.7	58.1	63.9
Helena.....	205	164	18	17.0	22.8	13.6	15.1	87.8	65.5
Missoula.....	384	214	20	30.3	33.3	16.9	16.9	52.1	52.1
Nebraska:									
Grand Island.....	362	224	34	23.2	24.1	14.4	17.6	93.9	94.9
Hesling.....	333	177	25	25.7	24.5	13.7	14.8	75.1	89.7
Lincoln.....	1,316	783	85	21.6	22.0	12.8	12.1	64.6	57.0
North Platte.....	209	119	20	15.3	19.4	8.7	10.4	95.7	90.6
Omaha.....	4,471	2,810	329	23.0	24.4	13.3	12.7	67.5	67.2
New Hampshire:									
Berlin.....	517	173	45	27.9	30.6	9.3	10.3	87.0	84.8
Concord.....	463	489	28	20.5	21.5	21.7	19.0	60.5	53.8
Dover.....	284	232	15	21.8	23.8	17.8	14.4	63.1	87.1
Keene.....	326	206	20	27.5	26.8	17.4	16.3	61.3	70.4
Laconia.....	276	220	33	24.4	24.4	20.3	16.5	119.6	63.0
Manchester.....	1,538	921	184	22.1	25.7	11.1	11.9	100.1	93.1
Nashua.....	701	416	68	26.6	28.3	14.0	12.4	86.0	73.2
Portsmouth.....	320	196	25	22.1	18.2	13.2	12.5	76.0	71.2
New Jersey:									
Asbury Park.....	227	145	12	16.0	15.0	10.6	10.8	52.9	59.7
Atlantic City.....	1,232	1,076	93	23.1	23.9	20.2	18.6	75.5	70.9
Bayonne.....	2,155	714	147	24.3	24.5	8.0	8.4	68.2	71.6
Belleville.....	345	232	28	18.3	19.0	12.3	13.1	80.9	88.8
Bloomfield.....	266	188	11	10.2	11.2	7.2	7.1	41.4	77.7
Bridgeton.....	340	238	28	23.0	24.4	16.5	15.3	32.4	85.5
Camden.....	3,100	1,775	271	24.2	25.9	13.8	13.8	87.2	90.0
Carteret.....	285	70	22	20.3	22.5	5.4	6.5	77.2	92.1
Clifton.....	540	212	28	15.8	16.9	6.1	6.9	51.6	78.4
East Orange.....	282	453	19	4.7	5.2	7.6	6.3	67.4	62.9



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	Births	Deaths		Births		Deaths		1925	1924
		All ages	Under 1 year	1925	1924	1925	1924		
REGISTRATION CITIES—continued									
New Jersey—Continued.									
Elizabeth	2,586	1,198	154	(c)	(c)	(c)	(c)	59.6	66.6
Englewood	600	273	40	47.7	48.7	21.7	19.9	66.7	72.8
Garfield	662	141	44	26.9	27.9	5.7	6.8	66.5	66.7
Gloucester	231	119	24	17.1	17.6	8.7	10.1	102.6	63.6
Hackensack	950	419	58	48.2	43.9	21.3	19.7	61.1	58.8
Harrison	302	145	25	18.4	23.7	8.8	8.8	82.8	69.9
Hoboken	1,326	904	84	19.5	21.6	13.3	14.0	63.3	71.3
Irvington	598	328	43	18.0	16.8	9.9	8.9	71.9	44.0
Jersey City	6,904	3,675	471	21.9	23.6	11.7	12.2	68.2	76.6
Kearny	534	285	34	17.1	16.0	9.1	10.0	63.7	65.6
Long Branch	611	471	52	44.8	41.6	34.5	29.0	85.1	84.7
Millville	303	182	25	19.0	23.0	11.4	10.9	82.5	74.6
Montclair	363	200	32	11.0	10.9	8.8	7.1	88.2	88.6
Morristown	572	360	32	43.5	42.6	28.6	22.8	90.9	61.7
New Brunswick	979	495	60	25.8	30.3	13.0	14.2	61.3	58.8
Newark	10,860	5,308	731	24.0	25.7	11.7	11.2	67.6	64.6
Orange	1,779	619	89	50.3	49.5	17.5	15.0	50.0	45.1
Passaic	1,764	726	117	25.6	28.0	10.5	9.2	66.3	64.6
Paterson	3,088	1,711	195	21.8	22.0	12.1	12.1	63.1	64.9
Perth Amboy	1,084	484	107	23.0	26.3	10.3	10.5	98.7	79.9
Phillipsburg	401	205	28	21.5	20.8	11.0	11.5	69.8	86.1
Plainfield	910	427	50	28.9	31.5	13.4	13.7	64.2	55.3
Rahway	291	162	16	24.2	19.4	13.5	10.9	55.0	69.9
Summit	320	168	16	27.4	27.2	14.4	14.9	50.0	51.8
Trenton	3,072	1,871	245	23.3	24.5	14.2	11.4	79.8	92.6
Union City	1,082	417	41	17.1	19.4	6.6	7.1	37.9	55.0
West New York	678	225	35	17.3	17.5	5.7	5.4	51.6	33.6
West Orange	153	127	7	8.4	11.0	7.0	7.5	45.8	67.0
New York:									
Albany	2,518	1,840	190	21.4	20.5	15.7	15.6	75.5	71.8
Amsterdam	832	392	59	23.6	23.7	11.1	11.5	70.9	62.0
Auburn	774	515	57	21.7	21.0	14.4	13.1	78.6	76.0
Batavia	475	268	30	30.4	27.1	17.1	15.2	63.2	60.4
Beacon	159	158	7	13.7	18.1	13.6	16.3	44.0	101.0
Binghamton	1,512	1,055	108	21.0	21.6	14.7	15.1	71.4	74.1
Buffalo	12,473	7,437	1,076	23.2	24.2	13.8	13.1	86.3	84.0
Cohoes	476	292	38	20.4	22.7	12.5	12.5	79.8	83.3
Corning	392	185	18	24.9	26.0	11.8	14.0	45.9	70.7
Cortland	365	270	24	26.3	26.7	19.5	19.1	65.8	103.3
Dunkirk	425	221	27	21.3	25.5	11.1	13.7	63.5	81.2
Elmira	1,058	731	88	21.9	23.3	15.2	13.7	83.2	89.0
Fulton	335	177	19	26.6	27.0	14.1	12.6	56.7	76.2
Geneva	401	208	30	25.2	24.5	13.1	13.8	74.8	65.1
Glens Falls	385	313	31	21.6	23.8	17.5	17.9	80.6	95.2
Gloversville	370	372	24	16.7	18.7	16.8	16.6	64.9	58.1
Herkimer	254	131	16	23.3	24.1	12.0	12.3	63.0	65.1
Hornell	296	202	16	18.8	19.0	12.9	12.5	54.1	63.8
Hudson	407	288	41	34.6	31.2	24.5	19.3	100.7	73.6
Rion	162	121	12	15.5	21.1	11.6	15.8	74.1	86.8
Ithaca	401	296	29	21.2	24.0	15.0	16.5	72.3	53.1
Jamestown	1,011	527	65	23.3	21.8	12.1	12.6	64.3	70.0
Johnstown	129	112	9	12.0	11.0	10.5	12.2	69.8	42.4
Kingston	588	546	49	20.9	21.5	19.4	18.4	83.3	66.8
Lockawanna	928	344	111	45.9	46.0	17.0	14.3	119.6	102.1
Little Falls	250	169	18	20.1	26.2	13.6	14.0	72.0	82.3
Lockport	469	327	38	21.6	22.5	15.1	13.9	81.0	41.1
Middletown	330	490	23	16.2	18.6	20.0	21.9	69.7	56.1
Mount Vernon	1,030	455	43	20.4	20.8	9.0	9.0	41.7	61.8
New Rochelle	869	382	40	19.7	18.5	8.6	9.0	46.0	49.1

\* Population not estimated.

*Births and deaths (exclusive of stillbirths), with rates per 1,000 population, and infant mortality, in the birth registration area, 1925—Continued*

Area	Number, 1925			Rate per 1,000 population				Deaths under 1 year per 1,000 births	
	Births	Deaths		Births		Deaths		1925	1924
		All ages	Under 1 year	1925	1924	1925	1924		
REGISTRATION CITIES—continued									
New York—Continued.									
New York (total).....	128,288	71,819	8,234	21.8	22.3	12.2	12.2	64.2	67.7
Bronx borough.....	15,660	8,355	870	18.0	17.9	9.6	9.3	55.6	59.7
Brooklyn borough.....	51,147	23,748	3,034	23.2	23.3	10.8	11.3	59.3	63.5
Manhattan borough.....	47,060	31,374	3,349	24.2	25.0	16.1	15.3	71.2	73.9
Queens borough.....	11,445	6,124	800	16.0	16.7	8.6	9.7	69.9	69.2
Richmond borough.....	2,976	2,218	181	21.5	21.7	16.0	12.8	60.8	69.5
Newburgh.....	636	501	44	20.9	20.6	16.5	15.7	69.2	62.4
Niagara Falls.....	1,679	688	134	27.7	23.7	12.1	10.1	84.9	62.3
North Tonawanda.....	411	191	29	23.7	20.8	11.0	11.8	70.6	93.0
Ogdensburg.....	428	432	47	25.1	25.1	25.3	27.4	109.8	107.7
Olean.....	544	280	44	25.5	23.7	13.1	13.4	80.9	73.6
Oneida.....	232	163	16	21.8	25.9	15.3	15.2	69.0	50.7
Oneonta.....	266	188	21	22.1	22.5	15.6	16.1	78.9	74.3
Ossining.....	285	181	13	22.3	21.0	14.2	14.1	45.6	46.0
Oswego.....	462	285	31	20.7	20.1	12.7	13.2	67.1	62.1
Pekskill.....	301	214	14	16.7	21.0	11.9	10.8	46.5	70.1
Plattsburg.....	337	230	34	29.2	30.2	19.9	20.9	100.9	89.6
Port Chester.....	520	193	30	30.1	34.0	10.0	10.9	51.7	53.1
Port Jervis.....	212	172	19	20.2	21.4	16.4	18.2	89.0	93.8
Poughkeepsie.....	673	498	48	18.9	19.3	14.0	14.3	71.3	61.8
Rensselaer.....	89	98	6	7.8	8.5	8.6	9.4	67.4	79.2
Rochester.....	6,593	3,839	424	20.8	20.9	12.1	11.6	64.4	58.3
Rome.....	689	482	58	22.7	24.8	15.9	16.8	84.2	58.4
Saratoga Springs.....	292	301	18	21.0	21.6	21.7	20.3	61.6	37.0
Schenectady.....	1,819	1,057	124	19.6	20.0	11.4	10.9	68.2	65.7
Syracuse.....	4,120	2,292	280	22.6	23.0	12.6	12.5	68.0	69.4
Tonawanda.....	249	101	26	22.1	20.5	8.9	9.4	104.4	70.5
Troy.....	1,485	1,354	146	20.6	20.9	18.7	18.3	98.3	92.0
Utica.....	2,290	1,513	172	22.5	24.1	14.9	15.6	75.1	81.1
Watertown.....	855	540	66	26.0	26.0	16.4	16.4	77.2	95.7
Watervliet.....	213	184	18	13.2	13.7	11.4	10.4	74.5	122.2
White Plains.....	583	312	30	21.3	20.6	11.4	10.2	51.3	47.9
Yonkers.....	2,317	1,143	159	20.4	21.4	10.1	9.8	68.6	72.1
North Carolina:									
Asheville.....	933	705	92	29.6	31.5	22.4	24.0	98.6	105.6
Charlotte.....	1,616	832	155	30.3	32.0	15.6	15.7	95.9	79.2
Durham.....	1,069	583	127	25.3	25.6	13.8	17.7	118.8	118.7
Gastonia.....	576	262	47	34.1	41.0	12.0	10.8	81.6	55.8
Goldensboro.....	413	233	48	28.0	27.4	16.4	17.6	116.2	125.0
Greensboro.....	1,242	568	108	27.4	31.0	12.1	11.8	87.0	68.0
High Point.....	808	319	87	34.2	34.0	13.5	14.2	105.2	93.2
New Bern.....	278	231	40	22.8	21.6	18.9	18.3	143.9	130.0
Raleigh.....	845	672	87	27.8	30.1	22.1	20.7	103.0	104.3
Rocky Mount.....	460	274	50	31.8	34.5	18.1	18.9	122.9	92.9
Salisbury.....	449	191	37	25.4	27.3	10.8	10.7	78.0	60.3
Wilmington.....	1,069	550	110	27.2	27.1	14.8	15.7	109.0	127.9
Wilson.....	420	264	61	32.8	36.5	20.6	17.6	145.2	101.5
Winston-Salem.....	1,837	877	215	26.6	29.2	12.7	15.9	117.0	136.5
North Dakota:									
Fargo.....	794	304	34	31.9	32.3	12.2	13.7	42.8	78.2
Grand Forks.....	497	151	17	32.8	32.8	10.0	10.9	34.2	40.6
Minot.....	273	210	28	22.3	26.4	17.1	13.1	102.0	85.4
Ohio:									
Akron.....	4,836	1,901	311	(*)	(*)	(*)	(*)	64.3	60.9
Alliance.....	440	280	30	17.6	21.1	11.2	10.6	68.2	79.9
Ashtabula.....	562	209	32	23.6	24.6	11.9	11.4	54.1	61.1
Barberton.....	562	204	48	24.1	22.0	8.8	9.9	85.4	87.0
Bellaire.....	354	175	21	21.8	24.4	10.8	12.0	59.3	115.1
Bucyrus.....	265	149	10	17.5	17.8	12.7	11.0	48.8	58.5
Cambridge.....	236	211	20	21.1	23.2	15.0	13.1	67.6	46.5
Canton.....	2,378	1,169	189	22.4	24.2	10.4	10.1	75.8	80.5
Chillicothe.....	434	286	28	26.1	25.0	14.2	14.2	64.5	75.4
Cincinnati.....	8,365	6,526	647	20.4	21.6	13.9	13.2	77.3	78.7

\* Population not estimated.

*Births and deaths (exclusive of stillbirths), with rates per 1,000 population, and infant mortality, in the birth registration area, 1925—Continued*

Area	Number, 1925			Rate per 1,000 population				Deaths under 1 year per 1,000 births	
	Births	Deaths		Births		Deaths		1925	1924
		All ages	Under 1 year	1925	1924	1925	1924		
REGISTRATION CITIES—continued									
Ohio—Continued.									
Cleveland	20,047	9,709	1,325	21.4	23.0	10.4	10.2	66.1	66.1
Cleveland Heights	49	207	7	2.2	4.1	9.3	8.6	142.9	46.5
Columbus	5,575	3,894	446	19.9	21.2	13.9	13.2	80.0	65.3
Coshocton	267	142	11	23.1	17.9	12.3	12.0	41.2	83.3
Cuyahoga Falls	244	110	8	17.8	18.9	8.0	7.4	32.8	28.3
Dayton	3,172	1,902	182	18.3	19.6	11.3	10.9	57.4	72.1
East Cleveland	116	212	6	3.1	3.2	5.6	6.4	51.7	149.1
East Liverpool	582	370	43	26.5	30.1	16.8	14.1	73.9	60.8
East Youngstown	423	115	58	26.5	27.6	7.2	7.8	137.1	108.5
Elyria	554	272	32	23.2	22.7	11.4	11.2	57.8	56.8
Findlay	409	267	23	22.4	20.6	14.6	13.6	56.2	78.0
Fremont	217	121	12	15.6	15.6	8.7	8.8	55.3	75.1
Hamilton	1,202	576	89	28.4	27.7	13.6	12.7	74.0	69.9
Ironton	399	228	32	27.5	27.0	15.7	15.8	80.2	90.0
Kenmore	389	104	24	20.1	20.3	5.4	4.4	61.7	62.0
Lakewood	672	430	31	11.8	13.1	7.0	7.4	46.1	54.9
Lancaster	350	207	33	21.8	23.3	12.9	14.4	94.3	70.3
Lima	1,074	583	75	23.0	24.1	12.5	12.4	69.8	72.6
Lorain	985	417	73	23.3	25.6	9.9	10.2	74.1	54.8
Mansfield	622	391	48	19.5	21.2	12.3	10.7	77.2	68.2
Maricetta	297	194	22	19.5	20.9	12.7	14.6	74.1	100.6
Marion	620	332	35	19.3	20.6	10.2	10.2	55.9	59.8
Marlins Ferry	368	215	30	23.7	19.4	13.8	13.5	81.5	107.7
Massillon	467	242	22	24.2	23.7	12.5	13.0	47.1	64.6
Middletown	843	285	54	27.3	20.1	9.2	9.8	64.1	73.0
New Philadelphia	301	109	16	25.1	23.4	8.3	9.4	53.2	25.4
Newark	563	379	32	18.6	20.2	12.4	12.5	56.3	81.4
Niles	262	106	24	15.8	20.9	6.4	5.8	91.6	62.5
Norwood	205	178	9	6.8	7.0	5.9	6.4	43.9	93.1
Piqua	299	220	24	18.7	19.2	14.3	15.1	80.3	79.2
Portsmouth	1,046	529	102	26.8	29.1	13.5	13.6	97.5	88.6
Salem	284	176	14	25.6	26.3	15.9	15.5	49.3	59.0
Sandusky	489	318	29	19.9	22.3	13.0	13.0	59.3	53.7
Springfield	1,309	893	190	18.9	18.7	12.1	13.0	76.9	59.6
Steubenville	751	460	85	23.5	25.1	14.4	15.2	113.2	94.0
Tiffin	318	223	15	20.4	17.1	14.3	13.7	47.2	106.9
Toledo	5,415	3,494	438	18.8	20.7	12.2	11.7	80.9	69.1
Warren	885	462	73	25.5	26.2	13.3	12.0	82.5	65.4
Youngstown	4,133	1,706	304	25.8	27.5	10.7	10.7	73.6	72.3
Zanesville	781	510	58	25.7	26.9	16.8	16.0	74.3	89.7
Oregon:									
Astoria	247	139	19	14.9	17.8	8.4	9.8	76.9	42.0
Eugene	452	274	24	39.6	39.4	24.0	20.8	53.1	29.7
Portland	5,183	3,330	228	(c)	18.7	(c)	11.7	45.9	53.6
Salem	395	664	23	20.0	20.0	33.7	32.8	58.2	54.3
Pennsylvania:									
Allentown	1,912	1,283	176	20.7	20.9	13.9	13.1	92.1	97.7
Altoona	1,094	812	142	25.6	26.6	12.3	11.0	83.8	54.7
Ambridge	417	110	28	24.5	21.6	6.5	5.5	67.1	71.2
Beaver Falls	346	213	40	26.3	24.2	16.2	16.6	115.6	91.5
Berwick	296	181	16	20.9	25.7	9.3	10.3	54.1	72.2
Bothlehem	1,217	421	93	19.4	21.0	6.7	7.6	76.4	63.4
Braddock	733	323	68	33.7	33.3	14.9	18.1	92.8	116.8
Bradford	435	253	34	27.5	25.1	16.0	15.9	78.2	50.5
Bristol	337	132	28	26.2	28.2	10.3	10.4	83.1	80.6
Butler	525	310	48	20.8	23.2	12.3	10.8	91.4	57.0
Canonsburg	327	114	22	24.2	25.4	8.5	9.7	67.3	75.8
Carbondale	551	319	64	28.2	30.4	16.3	15.1	110.2	98.5
Carlisle	296	179	16	25.9	24.6	15.6	18.1	54.1	79.4
Carnegie	268	85	16	21.7	25.4	6.9	8.4	59.7	77.4
Carriok	209	102	15	16.1	20.0	7.9	7.8	71.8	71.7

\* Population not estimated.

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Area	Number, 1925			Rate per 1,000 population				Deaths under 1 year per 1,000 births	
	Births	Deaths		Births		Deaths		1925	1924
		All ages	Under 1 year	1925	1924	1925	1924		
REGISTRATION CITIES—continued									
Pennsylvania—Continued.									
Chambersburg	287	211	20	20.6	22.5	15.1	13.8	69.7	74.0
Charleroi	290	88	18	23.0	21.9	7.0	8.2	62.1	103.3
Chester	1,287	749	135	18.8	23.4	10.9	10.3	104.9	87.3
Coatesville	254	132	22	15.4	17.4	8.0	7.1	86.6	75.0
Columbia	275	159	22	25.4	26.3	14.7	14.5	80.0	101.8
Connellsville	318	159	24	22.2	21.9	11.1	12.2	75.5	80.1
Dickson City	314	106	31	26.1	30.1	8.8	7.8	98.7	78.7
Donora	397	121	38	23.3	29.0	7.1	7.3	95.7	91.9
Du Bois	321	174	28	22.5	27.2	12.2	12.1	87.2	62.2
Dunmore	459	260	62	21.1	24.2	12.0	11.9	135.1	142.3
Duquesne	545	157	45	26.1	25.1	7.5	9.0	82.6	120.4
Easton	850	641	69	23.1	21.6	17.4	17.0	81.2	84.4
Erie	2,671	1,296	173	(c)	(c)	(c)	(c)	64.8	66.7
Farrell	414	118	29	22.2	23.1	6.3	9.2	70.0	145.6
Greensburg	438	262	30	27.3	27.9	16.3	17.1	68.5	56.4
Harrisburg	1,607	1,176	132	19.3	20.6	14.1	14.3	82.1	75.7
Hazleton	1,025	488	93	28.4	28.6	13.5	12.4	90.7	75.9
Homestead	560	254	50	26.1	24.8	11.8	14.6	89.3	115.7
Jeanette	379	119	31	32.3	28.9	10.1	7.5	81.8	38.9
Johnstown	2,180	1,020	191	30.5	32.3	14.3	13.2	87.6	82.3
Lancaster	1,475	957	131	26.1	25.9	16.9	17.2	88.8	84.3
Lebanon	589	353	36	23.4	23.5	14.0	16.4	61.1	90.0
McKees Rocks	463	138	32	25.6	25.0	7.6	8.1	69.1	72.1
McKeesport	1,329	690	108	27.1	28.6	14.1	18.4	81.3	97.6
Mahoney City	357	205	45	22.9	22.2	13.1	11.0	126.1	95.1
Meadville	390	270	32	25.0	24.4	17.3	14.1	82.1	61.3
Monessen	660	123	40	26.4	27.5	5.8	8.5	71.4	105.4
Mount Carmel	505	180	44	28.9	33.8	10.3	11.8	87.1	84.7
Nanticoke	737	366	80	29.8	31.3	14.8	14.2	108.5	87.9
New Castle	1,319	588	94	26.5	28.9	11.8	12.3	71.3	77.7
New Kensington	445	220	28	30.9	32.6	15.3	14.5	62.9	65.9
Norristown	820	704	86	23.5	24.3	20.2	20.2	104.9	83.9
North Braddock	387	117	23	23.2	25.8	7.0	8.0	59.4	118.2
Oil City	565	271	37	24.3	23.6	11.7	11.6	65.5	70.4
Old Forge	355	112	38	27.8	30.0	8.8	12.3	107.0	94.7
Olyphant	242	113	18	21.6	23.3	10.1	7.6	74.4	116.7
Philadelphia	39,145	20,047	3,005	19.8	21.3	13.2	12.9	76.8	74.7
Phoenixville	286	148	23	27.3	31.1	14.1	18.1	80.4	70.8
Pittsburgh	15,705	9,853	1,280	24.9	25.1	14.9	15.5	81.5	91.8
Pittston	573	217	69	29.0	33.9	12.5	11.8	120.4	80.1
Plymouth	452	162	39	27.4	29.5	9.8	10.0	86.3	76.1
Pottstown	415	274	45	22.5	27.3	14.8	14.6	108.4	64.5
Pottsville	572	486	63	25.1	27.1	20.4	20.5	110.1	93.0
Punxsutawney	223	145	18	20.2	25.5	13.2	15.1	80.7	89.9
Reading	2,260	1,474	180	20.1	21.2	13.1	13.5	79.6	79.0
Seranton	3,162	1,957	274	22.2	23.2	13.8	14.0	86.7	85.8
Shamokin	509	203	33	23.4	23.6	9.3	9.1	74.7	58.7
Sharon	607	282	36	24.3	23.0	11.3	12.4	59.3	78.4
Shenandoah	620	288	90	25.1	29.8	11.6	11.7	145.2	100.5
Steelton	309	144	20	23.0	21.9	10.7	9.5	64.7	105.4
Sunbury	367	180	15	21.8	20.7	10.7	11.0	40.9	58.1
Swissvale	198	110	8	15.3	16.2	8.5	8.0	46.4	59.1
Tamaqua	262	122	17	18.7	19.8	8.7	7.0	64.9	55.4
Uniontown	523	414	44	33.3	39.4	26.4	21.8	84.1	58.2
Warren	375	201	15	24.8	28.7	13.3	14.6	40.9	65.1
Washington	675	396	67	29.3	31.9	17.2	14.1	99.3	89.8
West Chester	383	312	51	32.7	35.0	26.6	25.8	133.2	117.1
Wicks-Barre	2,271	1,170	184	29.2	29.9	15.1	15.9	81.0	65.2
Wilkesburg	591	354	23	21.6	23.6	12.9	14.6	88.9	53.7
Williamsport	1,018	568	98	23.8	26.0	13.3	14.0	96.3	66.0
Woodbury	535	128	41	28.2	27.0	6.5	7.6	76.6	85.6
York	1,050	738	97	21.4	23.1	15.0	13.7	92.4	75.4

\* Population not estimated.

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Area	Number, 1925			Rate per 1,000 population				Deaths under 1 year per 1,000 births	
	Births	Deaths		Births		Deaths		1925	1924
		All ages	Under 1 year	1925	1924	1925	1924		
REGISTRATION CITIES—continued									
Rhode Island:									
Bristol town .....	250	141	22	19.7	22.9	11.1	10.5	88.0	111.9
Central Falls .....	555	221	49	21.8	25.5	8.7	9.2	88.3	91.8
Cranston .....	574	641	34	16.7	19.1	18.6	18.4	59.2	79.2
Cumberland town .....	175	100	17	17.1	21.0	9.8	11.4	97.1	84.1
East Providence town .....	467	268	41	17.9	17.7	10.3	10.9	87.8	80.0
Newport .....	479	396	26	17.3	17.3	14.3	11.8	54.3	63.5
Pawtucket .....	1,475	892	146	21.1	22.2	12.8	12.9	99.0	84.4
Providence .....	6,280	3,308	398	28.4	24.9	12.3	13.3	63.4	78.7
Warwick town .....	276	206	20	15.1	15.3	11.3	13.0	72.5	81.8
West Warwick town .....	380	181	32	20.9	23.7	9.9	10.2	84.2	94.8
Woonsocket .....	1,435	522	126	28.9	27.5	10.5	10.4	87.8	80.4
Vermont:									
Barre .....	279	157	12	27.9	24.2	15.7	13.9	43.0	74.4
Burlington .....	670	376	41	27.8	30.7	15.6	16.5	61.2	88.7
Rutland .....	355	202	33	22.5	22.6	18.5	16.3	93.0	59.7
Virginia:									
Alexandria .....	499	304	58	27.0	28.9	16.5	16.4	116.2	99.8
Charlottesville .....	284	146	27	25.3	22.1	13.0	12.9	95.1	89.4
Danville .....	619	341	72	27.0	28.1	14.8	15.5	116.3	103.4
Lynchburg .....	781	518	67	24.1	27.3	17.0	15.3	91.7	76.0
Newport News .....	582	342	52	12.3	14.8	7.3	9.6	89.3	91.1
Norfolk .....	2,584	1,775	250	(*)	(*)	(*)	(*)	96.7	81.6
Petersburg .....	705	539	87	19.7	21.7	15.1	15.2	123.4	143.8
Portsmouth .....	1,007	643	97	17.1	19.2	10.9	12.0	96.3	122.9
Richmond .....	4,189	2,740	379	22.5	23.7	14.7	15.3	90.5	87.6
Roanoke .....	1,777	839	166	30.5	31.9	14.4	13.6	93.4	85.0
Staunton .....	153	279	16	14.4	17.9	26.2	28.1	104.6	126.3
Washington:									
Aberdeen .....	396	247	21	24.5	24.0	15.3	10.9	53.0	31.2
Bellingham .....	679	382	34	25.9	23.6	14.6	12.3	50.1	58.3
Everett .....	594	333	20	20.3	20.9	11.4	11.5	48.8	56.1
Hoquiam .....	214	115	15	19.2	23.0	10.3	9.0	70.1	67.7
Seattle .....	5,416	3,372	243	(*)	(*)	(*)	(*)	44.9	46.0
Spokane .....	2,248	1,386	123	20.6	22.2	12.7	12.5	54.7	81.7
Tacoma .....	2,207	1,243	97	21.1	21.7	11.9	11.1	44.0	56.8
Vancouver .....	298	156	13	20.5	17.8	10.7	11.0	43.6	71.4
Walla Walla .....	300	215	22	19.4	21.5	13.9	13.5	73.3	48.0
Yakima .....	621	348	48	27.4	27.9	15.4	15.6	77.3	75.8
West Virginia:									
Bluefield .....	585	257	61	30.2	(*)	13.3	(*)	104.3	(*)
Charleston .....	1,401	809	136	28.6	(*)	16.5	(*)	97.1	(*)
Clarksburg .....	921	381	66	30.3	(*)	12.5	(*)	71.7	(*)
Fairmont .....	546	305	41	26.1	(*)	14.6	(*)	75.1	(*)
Huntington .....	1,667	980	183	26.3	(*)	15.4	(*)	109.8	(*)
Martinsburg .....	353	270	55	26.1	(*)	19.9	(*)	155.8	(*)
Morgantown .....	519	230	42	37.6	(*)	16.7	(*)	80.9	(*)
Moundsville .....	372	141	23	31.9	(*)	12.1	(*)	61.8	(*)
Parkersburg .....	494	307	42	23.2	(*)	14.4	(*)	85.0	(*)
Wheeling .....	1,638	1,001	137	29.1	(*)	17.8	(*)	83.6	(*)
Wisconsin:									
Appleton .....	521	270	37	24.6	23.8	12.8	15.6	71.0	100.8
Ashland .....	321	263	25	28.3	28.2	23.2	23.1	77.9	75.0
Beloit .....	538	258	43	21.7	22.7	10.4	9.9	79.9	51.0
Eau Claire .....	683	386	39	30.5	29.1	17.3	15.4	87.1	70.0
Fond du Lac .....	718	396	40	27.6	28.0	15.2	14.1	98.2	58.7
Green Bay .....	970	543	73	28.3	30.2	15.8	15.7	75.3	64.8
Janesville .....	410	254	27	19.7	21.1	12.2	11.2	68.9	65.1
Kenosha .....	1,116	387	62	21.9	22.4	7.6	7.3	55.6	55.7
La Crosse .....	958	518	91	31.5	30.3	17.0	17.3	53.2	56.3
Madison .....	1,251	598	54	27.0	25.3	12.9	11.9	43.2	48.2

\* Not in the registration area in 1924.

• Population not estimated.

*Births and deaths (exclusive of stillbirths), with rates per 1,000 population, and infant mortality, in the birth registration area, 1925—Continued*

Area	Number, 1925			Rate per 1,000 population				Deaths under 1 year per 1,000 births	
	Births	Deaths		Births		Deaths		1925	1924
		All ages	Under 1 year	1925	1924	1925	1924		
REGISTRATION CITIES—continued									
Wisconsin—Continued.									
Manitowoc.....	533	231	37	24.1	23.6	10.4	11.3	69.4	77.4
Marinette.....	340	170	26	25.0	24.5	12.5	14.7	76.5	123.1
Milwaukee.....	11,059	5,601	900	21.7	22.9	11.0	9.8	81.4	69.6
Oshkosh.....	778	431	35	23.4	23.1	13.0	13.6	45.0	71.8
Racine.....	1,373	572	86	20.3	19.8	8.4	8.1	62.6	61.8
Sheboygan.....	851	398	53	25.4	25.2	11.9	11.6	62.3	55.2
Stevens Point.....	323	139	23	25.1	27.2	10.8	13.0	71.2	87.5
Superior.....	778	456	45	19.6	22.4	11.5	11.0	57.8	64.0
Wausau.....	334	144	21	22.7	23.2	9.8	9.0	62.9	69.1
Wausau.....	613	259	47	30.5	29.9	12.9	14.7	76.7	85.9
West Allis.....	444	135	38	24.2	25.3	7.4	7.7	85.6	60.0
Wyoming:									
Casper.....	611	237	33	(*)	(*)	(*)	(*)	54.0	73.9
Cheyenne.....	394	176	18	25.5	25.8	11.4	11.4	45.7	71.4

\* Population not estimated.

## PATIENTS IN HOSPITALS FOR MENTAL DISEASES

Information regarding the patient population of hospitals for mental diseases in the United States has been collected by the Public Health Service, and the following table gives the data for the month of March, 1926, for 89 hospitals, situated in 23 States. Nearly all the institutions reporting are operated by State authorities, but several private institutions in Maryland and some county institutions in Pennsylvania are included.

The reports were received from the central State authorities having charge of the hospitals, or directly from the superintendents of the individual institutions.

Reports received from some hospitals are not included in the table for the reason that they were incomplete, or the data given were inconsistent in some particulars.

Patients on books March 1, 1926:

In hospitals.....	114,007
On parole or otherwise absent but still on books.....	9,512
<b>Total.....</b>	<b>123,519</b>

Admitted during month:

First admissions.....	2,245
Readmissions.....	434
Transferred to hospital from hospital in same State.....	1,275
<b>Total admitted during month.....</b>	<b>2,954</b>
<b>Total on books during month.....</b>	<b>126,473</b>

\* Transfers were made to and from hospitals which are not included in the table.

## Discharged during month:

As recovered.....	370
As improved.....	578
As unimproved.....	159
As without psychosis.....	27
Otherwise discharged.....	31

Total discharged during month.....	1, 165
Transferred from hospital to hospital in same State.....	<sup>1</sup> 230
Died during month.....	1, 198

Total discharged, transferred, and died (month)..... 2, 593

## Patients on books March 31, 1926:

In hospitals.....	114, 341
On parole or otherwise absent but still on books.....	9, 539

Total..... 123, 880

Males.....	63, 701
Females.....	60, 179

The total number of patients in institutions reporting was 123,519 on March 1, 1926, and 123,880 on March 31. The increase for the month was 361 patients (0.29 per cent).

Fifty-one and five-tenths per cent of the patients were males and 48.5 per cent were females.

The average number of patients on parole was 9,525, or 7.7 per cent of the average total population.

Eleven hundred and ninety-eight deaths of patients were reported during the month.

Three hundred and seventy patients were discharged as recovered, 578 as improved, and 159 as unimproved. Twenty-seven were discharged as without psychosis.

## DEATHS DURING WEEK ENDED MAY 29, 1926

*Summary of information received by telegraph from industrial insurance companies for week ended May 29, 1926, and corresponding week of 1925. (From the Weekly Health Index, June 2, 1926, issued by the Bureau of the Census, Department of Commerce)*

	Week ended May 29, 1926	Corresponding week, 1925
Policies in force.....	64, 584, 020	60, 037, 150
Number of death claims.....	12, 478	10, 495
Death claims per 1,000 policies in force, annual rate.....	10. 1	9. 1

<sup>1</sup> Transfers were made to and from hospitals which are not included in the table.

Deaths from all causes in certain large cities of the United States during the week ended May 23, 1926, infant mortality, annual death rate, and comparison with corresponding week of 1925. (From the Weekly Health Index, June 2, 1926, issued by the Bureau of the Census, Department of Commerce)

City	Week ended May 29, 1926		Annual death rate per 1,000 corresponding week, 1925	Deaths under 1 year		Infant mortality rate, week ended May 29, 1926 <sup>1</sup>
	Total deaths	Death rate <sup>2</sup>		Week ended May 29, 1926	Corresponding week, 1925	
Total (65 cities).....	6,998	12.7	12.4	868	776	8.60
Akron.....	40			9	6	96
Albany.....	58	16.7	15.9	3	1	63
Atlanta.....	74			12	16	
White.....	31			7		
Colored.....	43	( <sup>3</sup> )		5		
Baltimore.....	193	12.5	15.4	16	23	47
White.....	149			12		43
Colored.....	44	( <sup>3</sup> )		4		65
Birmingham.....	73	18.0	10.0	8	12	
White.....	36			7		
Colored.....	37	( <sup>3</sup> )		1		
Boston.....	188	12.5	13.9	18	23	51
Bridgeport.....	30			5	2	85
Buffalo.....	162	15.5	11.3	35	12	146
Cambridge.....	20	8.5	14.4	4	8	66
Camden.....	34	13.5	17.4	8	4	135
Canton.....	33	15.6	12.3	9	6	200
Chicago.....	676	11.6	12.2	77	100	68
Cincinnati.....	124	15.7	14.4	15	7	93
Cleveland.....	185	10.0	8.5	34	17	88
Columbus.....	72	13.2	13.0	0	8	0
Dallas.....	43	11.2	17.5	8	14	
White.....	35			7		
Colored.....	8	( <sup>3</sup> )		1		
Dayton.....	48	14.1	8.4	7	3	110
Denver.....	65	11.9	13.2	4	6	
Des Moines.....	39	13.9	6.3	4	4	67
Detroit.....	279	11.3	9.7	56	36	90
Duluth.....	26	12.0	8.5	1	0	23
El Paso.....	37	17.7	17.4	15	11	
Erie.....	26			3	4	95
Fall River.....	42	16.7	12.9	8	7	116
Flint.....	33	12.6	7.2	8	5	132
Fort Worth.....	35	11.5	11.6	10	4	
White.....	30			8		
Colored.....	5	( <sup>3</sup> )		2		
Grand Rapids.....	26	8.7	10.9	4	1	58
Houston.....	43			1	10	
White.....	31			0		
Colored.....	12	( <sup>3</sup> )		1		
Indianapolis.....	110	15.6	11.2	9	5	66
White.....	83			6		51
Colored.....	17			3		165
Kansas City, Kans.....	22	9.8	14.8	5	1	87
White.....	16			1		21
Colored.....	6	( <sup>3</sup> )		4		625
Kansas City, Mo.....	107	14.9	10.2	9	10	
Los Angeles.....	268			20	19	56
Louisville.....	95	15.9	10.2	12	0	103
White.....	73			10		100
Colored.....	22	( <sup>3</sup> )		2		125
Lowell.....	33			0	1	0
Lynn.....	23	11.5	7.1	0	2	50
Memphis.....	69	20.3	17.0	10	7	
White.....	26			7		
Colored.....	43	( <sup>3</sup> )		3		
Milwaukee.....	101	10.2	13.5	18	20	88
Minneapolis.....	108	13.0	9.4	16	6	89
Nashville.....	39	14.8	15.3	4	5	
White.....	15			3		
Colored.....	24	( <sup>3</sup> )		1		

<sup>1</sup> Annual rate per 1,000 population.

<sup>2</sup> Deaths under 1 year per 1,000 births. Cities left blank are not in the registration area for births.

<sup>3</sup> Data for 63 cities.

<sup>4</sup> Deaths for week ended Friday May 28, 1926.

<sup>5</sup> In the cities for which deaths are shown by color, the colored population in 1920 constituted the following percentages of the total population: Atlanta 31, Baltimore 15, Birmingham 39, Fort Worth 14, Houston 25, Kansas City, Kans. 14, Louisville 17, Memphis 38, Nashville 30, New Orleans 26, Norfolk 38, Richmond 32, and Washington, D. C. 25.



Deaths from all causes in certain large cities of the United States during the week ended May 29, 1926, infant mortality, annual death rate, and comparison with corresponding week of 1925. (From the Weekly Health Index, June 2, 1926, issued by the Bureau of the Census, Department of Commerce)—Continued

City	Week ended May 29, 1926		Annual death rate per 1,000 corresponding week, 1925	Deaths under 1 year		Infant mortality rate, week ended May 29, 1926
	Total deaths	Death rate		Week ended May 29, 1926	Corresponding week, 1925	
New Bedford.....	34			7	7	122
New Haven.....	81	23.2	7.3	7	6	96
New Orleans.....	160	19.9	18.2	14	21	
White.....	94			7		
Colored.....	66	( <sup>4</sup> )				
New York.....	1,367	12.0	12.4	168	152	66
Bronx Borough.....	180	9.3	9.9	14	15	46
Brooklyn Borough.....	460	10.7	11.2	63	65	64
Manhattan Borough.....	585	16.3	16.4	63	58	70
Queens Borough.....	117	8.0	8.3	17	12	77
Richmond Borough.....	45	16.4	12.1	6	2	105
Newark, N. J.....	103	11.7	10.1	17	14	81
Norfolk.....	29	8.7	11.4	2	5	37
White.....	15			1		30
Colored.....	14	( <sup>4</sup> )		1		50
Oakland.....	42	8.4	8.4	3	3	35
Oklahoma City.....	22			3	1	
Omaha.....	58	14.0	16.5	10	10	104
Paterson.....	31	11.3	9.9	3	7	52
Philadelphia.....	461	12.0	13.6	28	52	37
Pittsburgh.....	163	13.3	12.2	24	18	80
Portland, Oreg.....	57			0	3	0
Providence.....	69	13.1	12.8	8	7	66
Richmond.....	60	16.6	17.9	7	11	88
White.....	28			3		59
Colored.....	32	( <sup>5</sup> )		4		140
Rochester.....	77	12.5	14.8	7	6	56
St. Louis.....	235	14.8	13.4	26	18	
St. Paul.....	48	10.1	9.1	0	1	53
Salt Lake City.....	30	11.8	12.3	3	2	41
San Antonio.....	64	16.3	16.1	24	9	
San Diego.....	43	20.4	18.7	4	2	84
San Francisco.....	145	13.3	10.5	10	7	60
Schenectady.....	15	8.4	12.4	2	0	58
Seattle.....	62			1	7	9
Somerville.....	16	8.3	11.1	2	3	52
Spokane.....	21	10.0	13.4	3	2	70
Springfield, Mass.....	34	11.1	11.4	4	2	58
Syracuse.....	44	12.5	7.2	8	2	104
Tacoma.....	28	13.8	7.5	3	1	70
Toledo.....	71	12.6	13.1	9	8	87
Trenton.....	43	16.7	17.0	3	5	50
Utica.....	44	22.3	19.0	1	4	22
Washington, D. C.....	120	11.9	15.1	12	18	68
White.....	59			3		25
Colored.....	61	( <sup>5</sup> )		9		164
Waterbury.....	19			4	3	86
Wilmington, Del.....	30	12.6	8.5	5	3	117
Worcester.....	64	17.3	14.8	7	4	81
Yonkers.....	18	8.1	11.9	1	2	22
Youngstown.....	42	13.3	9.8	5	3	64

For footnotes 4 and 5, see p. 1180.

# PREVALENCE OF DISEASE

*No health department, State or local, can effectively prevent or control disease without knowledge of when, where, and under what conditions cases are occurring*

## UNITED STATES

### CURRENT WEEKLY STATE REPORTS

These reports are preliminary, and the figures are subject to change when later returns are received by the State health officers

#### Reports for Week Ended June 5, 1926

ALABAMA		CALIFORNIA	
	Cases		Cases
Chicken pox.....	23	Cerebrospinal meningitis:	
Dengue.....	1	Los Angeles.....	1
Diphtheria.....	9	Merced County.....	1
Influenza.....	13	Chicken pox.....	160
Lethargic encephalitis.....	1	Diphtheria.....	86
Malaria.....	31	Influenza.....	20
Measles.....	323	Measles.....	474
Mumps.....	22	Mumps.....	265
Pellagra.....	36	Poliomyelitis:	
Pneumonia.....	36	Chino.....	2
Scarlet fever.....	5	Inglewood.....	1
Smallpox.....	64	Long Beach.....	1
Tetanus.....	1	San Diego.....	3
Trachoma.....	2	Scarlet fever.....	167
Tuberculosis.....	42	Smallpox.....	27
Typhoid fever.....	12	Typhoid fever.....	18
Whooping cough.....	53	Whooping cough.....	68
ARIZONA		COLORADO	
German measles.....	2	Chicken pox.....	82
Mumps.....	2	Conjunctivitis.....	4
Pneumonia.....	4	Diphtheria.....	10
Scarlet fever.....	2	Hookworm disease.....	1
Tuberculosis.....	30	Measles.....	42
Typhoid fever.....	7	Mumps.....	7
Whooping cough.....	3	Pneumonia.....	6
ARKANSAS		Scarlet fever.....	28
Chicken pox.....	36	Smallpox.....	2
Diphtheria.....	3	Trachoma.....	1
Hookworm disease.....	1	Tuberculosis.....	44
Influenza.....	16	Vincent's angina.....	1
Malaria.....	42	Whooping cough.....	56
Measles.....	53	CONNECTICUT	
Mumps.....	7	Cerebrospinal meningitis.....	2
Pellagra.....	32	Chicken pox.....	54
Scarlet fever.....	29	Diphtheria.....	18
Smallpox.....	3	German measles.....	25
Trachoma.....	2	Influenza.....	6
Tuberculosis.....	14	Measles.....	421
Typhoid fever.....	8	Mumps.....	5
Whooping cough.....	24		

## CONNECTICUT—continued

	Cases
Pneumonia (broncho).....	24
Pneumonia (lobar).....	25
Scarlet fever.....	80
Tuberculosis (all forms).....	36
Typhoid fever.....	1
Whooping cough.....	29

## DELAWARE

Chicken pox.....	1
Measles.....	27
Pneumonia.....	1
Scarlet fever.....	7
Tuberculosis.....	2
Whooping cough.....	1

## DISTRICT OF COLUMBIA

Chicken pox.....	27
Diphtheria.....	6
Measles.....	191
Pneumonia.....	29
Scarlet fever.....	28
Tuberculosis.....	26
Typhoid fever.....	1
Whooping cough.....	27

## FLORIDA

Cerebrospinal meningitis.....	1
Chicken pox.....	15
Dengue.....	4
Diphtheria.....	7
German measles.....	2
Malaria.....	2
Measles.....	21
Mumps.....	15
Paratyphoid fever.....	1
Pneumonia.....	3
Scarlet fever.....	7
Smallpox.....	47
Tetanus.....	2
Tuberculosis.....	5
Typhoid fever.....	12
Typhus fever.....	1
Whooping cough.....	20

## GEORGIA

Chicken pox.....	29
Diphtheria.....	9
Dysentery.....	31
Hookworm disease.....	1
Influenza.....	12
Malaria.....	30
Measles.....	70
Mumps.....	18
Pellagra.....	15
Pneumonia.....	20
Scarlet fever.....	1
Septic sore throat.....	5
Smallpox.....	12
Tetanus.....	1
Tuberculosis.....	14
Typhoid fever.....	24
Typhus fever.....	2
Whooping cough.....	12

## IDAHO

	Cases
Chicken pox.....	13
Diphtheria.....	6
Measles.....	7
Mumps.....	5
Rocky Mountain spotted fever:	
Shoshone.....	2
Wendell.....	1
Scarlet fever.....	4
Smallpox.....	3
Typhoid fever.....	2
Whooping cough.....	3

## ILLINOIS

Cerebrospinal meningitis—Cook County.....	2
Diphtheria.....	71
Influenza.....	55
Lethargic encephalitis—Macoupin County.....	1
Measles.....	1,133
Pneumonia.....	235
Scarlet fever.....	173
Smallpox.....	17
Tuberculosis.....	333
Typhoid fever.....	17
Whooping cough.....	267

## INDIANA

Chicken pox.....	51
Diphtheria.....	21
Influenza.....	33
Measles.....	785
Pneumonia.....	9
Scarlet fever.....	102
Smallpox.....	91
Trachoma—Knox County.....	4
Tuberculosis.....	57
Typhoid fever.....	8
Whooping cough.....	105

## KANSAS

Chicken pox.....	67
Diphtheria.....	6
German measles.....	18
Influenza.....	2
Lethargic encephalitis.....	1
Measles.....	414
Mumps.....	28
Pneumonia.....	11
Scarlet fever.....	38
Smallpox.....	12
Tuberculosis.....	35
Typhoid fever.....	1
Whooping cough.....	130

## LOUISIANA

Diphtheria.....	8
Dysentery.....	2
Influenza.....	10
Malaria.....	3
Measles.....	7
Pellagra.....	8
Pneumonia.....	9
Scarlet fever.....	13
Smallpox.....	23
Tuberculosis.....	24
Typhoid fever.....	13
Whooping cough.....	21

MAINE		MINNESOTA	
	Cases		Cases
Cerebrospinal meningitis.....	1	Cerebrospinal meningitis.....	1
Chicken pox.....	17	Chicken pox.....	73
Diphtheria.....	3	Diphtheria.....	36
German measles.....	44	Lethargic encephalitis.....	1
Influenza.....	2	Measles.....	688
Measles.....	222	Pneumonia.....	8
Mumps.....	16	Scarlet fever.....	209
Pneumonia.....	10	Smallpox.....	7
Polioomyelitis.....	1	Tuberculosis.....	42
Scarlet fever.....	15	Typhoid fever.....	1
Tuberculosis.....	5	Whooping cough.....	37
Typhoid fever.....	6		
Whooping cough.....	30		
MARYLAND <sup>1</sup>		MISSISSIPPI	
Cerebrospinal meningitis.....	1	Diphtheria.....	5
Chicken pox.....	59	Scarlet fever.....	3
Diphtheria.....	13	Smallpox.....	8
Dysentery.....	5	Typhoid fever.....	10
German measles.....	6		
Influenza.....	5		
Malaria.....	2		
Measles.....	273		
Mumps.....	122		
Ophthalmia neonatorum.....	1		
Pneumonia (broncho).....	19		
Pneumonia (lobar).....	20		
Scarlet fever.....	57		
Septic sore throat.....	1		
Trachoma.....	1		
Tuberculosis.....	100		
Typhoid fever.....	5		
Typhus fever.....	2		
Whooping cough.....	63		
MASSACHUSETTS		MISSOURI	
Cerebrospinal meningitis.....	1	Cerebrospinal meningitis.....	2
Chicken pox.....	148	Chicken pox.....	36
Conjunctivitis (suppurative).....	4	Diphtheria.....	76
Diphtheria.....	65	Influenza.....	6
German measles.....	268	Measles.....	661
Influenza.....	4	Mumps.....	12
Lethargic encephalitis.....	3	Ophthalmia neonatorum.....	2
Measles.....	671	Pneumonia.....	9
Mumps.....	119	Rabies (in animals).....	5
Ophthalmia neonatorum.....	27	Scarlet fever.....	84
Pneumonia (lobar).....	60	Smallpox.....	7
Polioomyelitis.....	2	Trachoma.....	32
Scarlet fever.....	202	Tuberculosis.....	44
Septic sore throat.....	1	Typhoid fever.....	10
Trachoma.....	2	Whooping cough.....	47
Tuberculosis (pulmonary).....	100		
Tuberculosis (other forms).....	20		
Typhoid fever.....	3		
Whooping cough.....	177		
MICHIGAN		MONTANA	
Diphtheria.....	54	Chicken pox.....	5
Measles.....	1,009	Diphtheria.....	1
Pneumonia.....	78	German measles.....	25
Scarlet fever.....	265	Measles.....	67
Small pox.....	5	Scarlet fever.....	28
Tuberculosis.....	52	Smallpox.....	12
Typhoid fever.....	11	Tuberculosis.....	2
Whooping cough.....	79	Typhoid fever.....	1
		Whooping cough.....	7
		NEBRASKA	
		Chicken pox.....	11
		Diphtheria.....	1
		Measles.....	61
		Mumps.....	1
		Scarlet fever.....	43
		Smallpox.....	19
		Whooping cough.....	19
		NEW JERSEY	
		Cerebrospinal meningitis.....	4
		Chicken pox.....	139
		Diphtheria.....	60
		Influenza.....	4
		Measles.....	1,000
		Pneumonia.....	110
		Scarlet fever.....	192
		Trachoma.....	1
		Typhoid fever.....	3
		Whooping cough.....	69

<sup>1</sup> Week ended Friday.

## NEW MEXICO

	Cases
Chicken pox.....	10
Conjunctivitis.....	2
Diphtheria.....	5
Measles.....	2
Mumps.....	5
Pellagra.....	1
Pneumonia.....	1
Rabies (in animals).....	8
Scarlet fever.....	4
Trachoma.....	9
Tuberculosis.....	6
Typhoid fever.....	1
Whooping cough.....	19

## NEW YORK

(Exclusive of New York City) \*

Chicken pox.....	281
Diphtheria.....	68
Dysentery.....	1
German measles.....	541
Influenza.....	7
Malaria.....	4
Measles.....	1,821
Mumps.....	170
Ophthalmia neonatorum.....	1
Pneumonia.....	246
Poliomyelitis.....	2
Scarlet fever.....	208
Septic sore throat.....	6
Smallpox.....	6
Tetanus.....	2
Typhoid fever.....	6
Vincent's angina.....	5
Whooping cough.....	231

## NORTH CAROLINA

Chicken pox.....	108
Diphtheria.....	16
German measles.....	159
Measles.....	427
Scarlet fever.....	28
Septic sore throat.....	4
Smallpox.....	43
Typhoid fever.....	13
Whooping cough.....	303

## OKLAHOMA

(Exclusive of Oklahoma City and Tulsa)

Chicken pox.....	59
Diphtheria.....	4
Influenza.....	40
Malaria.....	46
Measles.....	158
Mumps.....	10
Pellagra.....	24
Pneumonia.....	30
Scarlet fever.....	23
Smallpox.....	11
Typhoid fever.....	21
Whooping cough.....	40

## OREGON

Cerebrospinal meningitis.....	2
Chicken pox.....	41
Diphtheria.....	16

## OREGON—continued

	Cases
Influenza.....	9
Lethargic encephalitis.....	2
Measles.....	93
Mumps.....	10
Pneumonia.....	26
Puerperal septicemia.....	1
Scarlet fever.....	53
Septic sore throat.....	1
Smallpox.....	27
Tuberculosis.....	16
Typhoid fever.....	7
Whooping cough.....	43

## PENNNSYLVANIA

Anthrax—Philadelphia.....	2
Cerebrospinal meningitis—Philadelphia.....	1
Chicken pox.....	364
Diphtheria.....	179
German measles.....	72
Impetigo contagiosa.....	8
Lethargic encephalitis—Philadelphia.....	2
Measles.....	3,503
Mumps.....	64
Ophthalmia neonatorum—Philadelphia.....	2
Pneumonia.....	28
Puerperal septicemia.....	2
Scabies.....	8
Scarlet fever.....	618
Tetanus—Terre Hill.....	1
Tuberculosis.....	98
Typhoid fever.....	36
Whooping cough.....	344

## RHODE ISLAND

Anthrax—Providence.....	1
Chicken pox.....	1
Diphtheria.....	9
German measles.....	24
Influenza.....	2
Measles.....	64
Ophthalmia neonatorum.....	1
Scarlet fever.....	3
Tuberculosis.....	10
Whooping cough.....	10

## SOUTH DAKOTA

Cerebrospinal meningitis.....	1
Chicken pox.....	3
Measles.....	104
Mumps.....	8
Pneumonia.....	1
Rocky Mount in spotted fever.....	2
Scarlet fever.....	68
Smallpox.....	8
Tuberculosis.....	1
Typhoid fever.....	1
Whooping cough.....	20

## TENNESSEE

Chicken pox.....	18
Diphtheria.....	5
Dysentery.....	1
Influenza.....	25
Malaria.....	12
Measles.....	176
Mumps.....	4

\* Deaths.

TENNESSEE—continued		WASHINGTON—continued	
	Cases		Cases
Pellagra.....	26	Chicken pox.....	69
Pneumonia.....	32	Diphtheria.....	16
Polioomyelitis—Lake County.....	1	German measles.....	51
Scarlet fever.....	12	Measles.....	65
Smallpox.....	16	Mumps.....	38
Tetanus.....	2	Scarlet fever.....	51
Tuberculosis.....	32	Smallpox.....	20
Typhoid fever.....	8	Tuberculosis.....	67
Whooping cough.....	62	Typhoid fever.....	2
		Whooping cough.....	22
TEXAS		WISCONSIN	
Chicken pox.....	38	Milwaukee:	
Diphtheria.....	19	Chicken pox.....	90
Dysentery.....	12	Diphtheria.....	13
Influenza.....	17	German measles.....	3
Measles.....	12	Influenza.....	2
Mumps.....	19	Measles.....	263
Pellagra.....	4	Mumps.....	50
Pneumonia.....	10	Pneumonia.....	19
Scarlet fever.....	13	Scarlet fever.....	15
Smallpox.....	63	Tuberculosis.....	10
Tetanus.....	1	Whooping cough.....	31
Tuberculosis.....	15	Scattering:	
Typhoid fever.....	3	Cerebrospinal meningitis.....	1
Typhus fever.....	1	Chicken pox.....	72
Whooping cough.....	38	Diphtheria.....	19
		German measles.....	138
UTAH		Influenza.....	11
Chicken pox.....	31	Measles.....	1,046
Diphtheria.....	6	Mumps.....	32
German measles.....	34	Pneumonia.....	12
Measles.....	51	Scarlet fever.....	72
Mumps.....	13	Tuberculosis.....	15
Pneumonia.....	2	Typhoid fever.....	4
Scarlet fever.....	11	Whooping cough.....	103
Smallpox.....	1		
Whooping cough.....	131		
VERMONT		WYOMING	
Chicken pox.....	13	Chicken pox.....	55
Diphtheria.....	2	Diphtheria.....	1
Measles.....	113	German measles.....	5
Mumps.....	13	Influenza.....	1
Polioomyelitis.....	1	Measles.....	8
Scarlet fever.....	8	Mumps.....	3
Whooping cough.....	24	Rocky Mountain spotted fever:	
		Campbell County.....	4
VIRGINIA		Carbon County.....	2
Smallpox.....	5	Johnson County.....	2
		Natron County.....	2
WASHINGTON		Sheridan County.....	1
Cerebrospinal meningitis:		Washakie County.....	1
Aberdeen.....	1	Scarlet fever.....	52
Hoguenam.....	3	Whooping cough.....	4
Lewis County.....	1		
Spokane.....	1		

## Report for Week Ended May 29, 1926

NORTH DAKOTA		NORTH DAKOTA—continued	
	Cases		Cases
Cerebrospinal meningitis.....	1	Pneumonia.....	6
Chicken pox.....	19	Scarlet fever.....	51
Diphtheria.....	4	Smallpox.....	7
German measles.....	18	Tuberculosis.....	3
Influenza.....	20	Typhoid fever.....	1
Measles.....	21	Whooping cough.....	37

## SUMMARY OF MONTHLY REPORTS FROM STATES

The following summary of monthly State reports is published weekly and covers only those States from which reports are received during the current week:

State	Cerebro-spinal meningitis	Diphtheria	Influenza	Malaria	Measles	Pellagra	Poliomyelitis	Scarlet fever	Smallpox	Typhoid fever
<i>April, 1926</i>										
California.....	15	381	124	3	1,148	6	10	474	337	122
Colorado.....	0	83	61		211		1	145	4	8
Florida.....	1	107	57	17	239	5	1	35	407	46
Idaho.....	9	14	22	0	150	0	0	74	51	19
Montana.....	2	8	47	0	201		0	175	28	0
Oregon.....	10	88	219		332		0	225	99	11
South Dakota.....	0	22	34		249		0	518	29	6
Virginia.....	6	72	5,087	57	3,786	33	2	342	61	20

## PLAGUE-ERADICATIVE MEASURES IN LOS ANGELES, CALIF.

The following items were taken from the reports of plague-eradication measures from Los Angeles, Calif.:

Week ended May 29, 1926:

Number of rats trapped.....	412
Number of rats found to be plague infected.....	0
Number of squirrels examined.....	826
Number of squirrels found to be plague infected.....	0
Number of mice trapped.....	274
Number of mice found to be plague infected.....	0

Date of discovery of last plague-infected rodent, Nov. 6, 1925.

Date of last human case, Jan. 15, 1925.

## GENERAL CURRENT SUMMARY AND WEEKLY REPORTS FROM CITIES

*Diphtheria.*—For the week ended May 22, 1926, 36 States reported 1,041 cases of diphtheria. For the week ended May 23, 1925, the same States reported 1,313 cases of this disease. One hundred cities, situated in all parts of the country and having an aggregate population of more than 30,000,000, reported 685 cases of diphtheria for the week ended May 22, 1926. Last year for the corresponding week they reported 845 cases. The estimated expectancy for these cities was 879 cases. The estimated expectancy is based on the experience of the last nine years, excluding epidemics.

*Measles.*—Thirty-four States reported 16,671 cases of measles for the week ended May 22, 1926, and 5,988 cases of this disease for the week ended May 23, 1925. One hundred cities reported 8,301 cases of measles for the week this year, and 3,304 cases last year.

*Poliomyelitis.*—The health officers of 36 States reported 10 cases of poliomyelitis for the week ended May 22, 1926. The same States reported 18 cases for the week ended May 23, 1925.

*Scarlet fever.*—Scarlet fever was reported for the week as follows: Thirty-six States—this year, 3,208 cases; last year, 3,112 cases;

100 cities—this year, 1, 792 cases; last year, 1,673 cases; estimated expectancy, 1,040 cases.

*Smallpox.*—For the week ended May 22, 1926, 36 States reported 602 cases of smallpox. Last year for the corresponding week they reported 682 cases. One hundred cities reported smallpox for the week as follows: 1926, 108 cases; 1925, 335 cases; estimated expectancy, 129 cases. Three deaths from smallpox were reported by these cities for the week this year—1 at Chicago, Ill., and 2 at Los Angeles, Calif.

*Typhoid fever.*—Two hundred and thirty-two cases of typhoid fever were reported for the week ended May 22, 1926, by 35 States. For the corresponding week of 1925, the same States reported 365 cases of this disease. One hundred cities reported 62 cases of typhoid fever for the week this year and 106 cases for the corresponding week last year. The estimated expectancy for these cities was 61 cases.

*Influenza and pneumonia.*—Deaths from influenza and pneumonia were reported for the week by 94 cities, with a population of more than 29,300,000 as follows: 1926, 875 deaths; 1925, 750.

*City reports for week ended May 22, 1926*

The "estimated expectancy" given for diphtheria, poliomyelitis, scarlet fever, smallpox, and typhoid fever is the result of an attempt to ascertain from previous occurrence how many cases of the disease under consideration may be expected to occur during a certain week in the absence of epidemics. It is based on reports to the Public Health Service during the past nine years. It is in most instances the median number of cases reported in the corresponding week of the preceding years. When the reports include several epidemics or when for other reasons the median is unsatisfactory, the epidemic periods are excluded and the estimated expectancy is the mean number of cases reported for the week during non-epidemic years.

If reports have not been received for the full nine years, data are used for as many years as possible, but no year earlier than 1917 is included. In obtaining the estimated expectancy, the figures are smoothed when necessary to avoid abrupt deviations from the usual trend. For some of the diseases given in the table the available data were not sufficient to make it practicable to compute the estimated expectancy.

Division, State, and city	Population July 1, 1925, estimated	Chicken pox, cases re-ported	Diphtheria		Influenza		Meas-les, cases re-ported	Mumps, cases re-ported	Pneu-monia, deaths re-ported
			Cases, esti-mated expectancy	Cases re-ported	Cases re-ported	Deaths re-ported			
NEW ENGLAND									
Maine:									
Portland.....	75,333	3	1	0	0	0	119	5	3
New Hampshire:									
Concord.....	22,546	0	0	0	0	0	0	0	4
Vermont:									
Barre.....	10,008	0	0	0	0	0	0	1	1
Burlington.....	24,089	6	1	0	0	0	2	0	1
Massachusetts:									
Boston.....	770,620	27	52	12	4	3	128	57	24
Fall River.....	128,993	0	3	6	0	0	0	1	3
Springfield.....	142,065	3	3	1	0	0	29	4	4
Worcester.....	190,757	7	4	2	0	0	5	2	6
Rhode Island:									
Pawtucket.....	69,700	0	1	0	0	0	14	0	2
Providence.....	267,918	2	9	2	0	0	35	3	4
Connecticut:									
Bridgeport.....	(1)	0	5	7	2	1	3	0	2
Hartford.....	160,197	1	6	2	0	1	13	0	6
New Haven.....	178,927	21	3	1	0	0	109	0	2

<sup>1</sup> No estimate made.



## City reports for week ended May 22, 1926—Continued

Division, State, and city	Population July 1, 1925, estimated	Chicken pox, cases reported	Diphtheria		Influenza		Measles, cases reported	Mumps, cases reported	Pneumonia, deaths reported
			Cases, estimated expectancy	Cases reported	Cases reported	Deaths reported			
MIDDLE ATLANTIC									
New York:									
Buffalo.....	538, 016	17	10	5	0	1	28	1	21
New York.....	5, 873, 356	142	262	165	33	14	930	75	217
Rochester.....	316, 786	9	7	16	2	2	92	0	10
Syracuse.....	182, 003	8	6	0	0	1	204	15	3
New Jersey:									
Camden.....	128, 642	2	4	3	1	1	48	0	3
Newark.....	452, 513	48	15	10	4	1	163	11	14
Trenton.....	132, 020	4	3	1	1	1	74	4	2
Pennsylvania:									
Philadelphia.....	1, 979, 364	80	62	72	-----	5	432	6	53
Pittsburgh.....	651, 563	17	19	5	-----	6	181	0	23
Reading.....	112, 707	7	3	0	-----	0	34	1	1
EAST NORTH CENTRAL									
Ohio:									
Cincinnati.....	409, 333	4	7	5	0	6	335	25	10
Cleveland.....	936, 485	27	19	23	2	2	53	6	24
Columbus.....	279, 886	5	3	7	0	0	117	2	7
Toledo.....	287, 380	31	4	3	0	3	330	0	10
Indiana:									
Fort Wayne.....	97, 846	4	2	1	0	0	81	0	1
Indianapolis.....	358, 819	7	5	3	0	1	60	0	13
South Bend.....	80, 091	0	1	0	0	0	20	0	5
Terre Haute.....	71, 071	1	0	1	0	1	27	0	2
Illinois:									
Chicago.....	2, 995, 239	97	92	65	8	3	195	40	50
Peoria.....	81, 564	0	2	0	0	0	0	0	3
Springfield.....	63, 923	3	0	0	4	5	17	1	2
Michigan:									
Detroit.....	1, 245, 824	30	40	44	3	5	91	10	45
Flint.....	130, 316	7	4	1	0	0	152	0	8
Grand Rapids.....	153, 698	3	3	0	0	0	46	0	2
Wisconsin:									
Kenosha.....	50, 891	5	1	3	0	0	3	0	2
Madison.....	46, 385	3	1	2	0	0	226	1	2
Milwaukee.....	509, 192	83	11	19	6	4	282	45	23
Racine.....	67, 707	3	0	1	0	0	294	6	0
Superior.....	39, 671	0	0	0	0	0	9	0	1
WEST NORTH CENTRAL									
Minnesota:									
Duluth.....	110, 502	3	1	0	0	0	92	0	4
Minneapolis.....	425, 435	58	15	14	0	0	133	0	10
St. Paul.....	246, 001	31	17	13	0	1	323	0	7
Iowa:									
Davenport.....	52, 469	2	1	0	0	-----	5	0	-----
Des Moines.....	141, 441	0	3	4	0	-----	16	22	-----
Sioux City.....	76, 411	1	0	0	0	-----	0	0	-----
Waterloo.....	36, 771	2	0	1	0	-----	73	0	-----
Missouri:									
Kansas City.....	367, 481	-----	5	-----	-----	-----	-----	-----	-----
St. Joseph.....	78, 342	3	1	0	0	0	19	0	7
St. Louis.....	821, 543	15	42	43	1	0	883	5	-----
North Dakota:									
Fargo.....	26, 403	5	0	0	0	0	0	7	0
Grand Forks.....	14, 811	-----	0	-----	-----	-----	-----	-----	-----
South Dakota:									
Aberdeen.....	15, 036	1	0	0	0	-----	14	14	-----
Sioux Falls.....	30, 127	0	1	0	0	0	9	0	0
Nebraska:									
Lincoln.....	60, 941	12	1	1	0	0	0	0	0
Omaha.....	211, 768	15	2	1	0	0	86	0	4
Kansas:									
Topeka.....	55, 411	33	1	0	0	1	7	0	2
Wichita.....	88, 367	4	1	0	0	0	27	0	2

## City reports for week ended May 22, 1926—Continued

Division, State, and city	Population July 1, 1925, estimated	Chicken pox, cases reported	Diphtheria		Influenza		Measles, cases reported	Mumps, cases reported	Pneumonia, deaths reported
			Cases, estimated expectancy	Cases reported	Cases reported	Deaths reported			
SOUTH ATLANTIC									
Delaware:									
Wilmington.....	122,049	1	1	2	0	0	4	0	2
Maryland:									
Baltimore.....	796,296	48	20	12	5	4	51	100	38
Cumberland.....	33,741	0	0	0	0	0	23	0	1
Frederick.....	12,035	0	0	0	0	0	8	2	0
District of Columbia:									
Washington.....	497,906	28	10	12	1	0	353	0	9
Virginia:									
Lynchburg.....	30,395	3	0	2	0	0	54	0	0
Norfolk.....	(1)	36	0	0	0	0	27	2	5
Richmond.....	196,403	2	1	1	0	1	58	7	4
Roanoke.....	58,208	0	1	1	0	0	49	0	2
West Virginia:									
Charleston.....	49,019	1	0	0	2	0	23	0	1
Huntington.....	63,485	0	0	0	0	1	1	0	0
Wheeling.....	56,208	7	0	1	0	0	158	0	1
North Carolina:									
Raleigh.....	30,371	1	0	0	0	0	1	0	0
Wilmington.....	37,061	13	0	0	0	0	2	0	2
Winston-Salem.....	69,031	0	0	1	0	0	18	0	1
South Carolina:									
Charleston.....	73,125	3	0	0	11	0	1	2	2
Columbia.....	41,225	7	1	0	0	0	0	0	0
Greenville.....	27,311	0	0	0	0	0	0	1	0
Georgia:									
Atlanta.....	(1)	7	1	5	2	1	47	1	8
Brunswick.....	16,809	3	0	0	0	0	1	0	0
Savannah.....	93,134	2	0	1	0	0	0	0	1
Florida:									
Miami.....	69,751	1	-----	6	0	0	6	6	0
Tampa.....	94,743	1	0	0	0	0	5	0	2
EAST SOUTH CENTRAL									
Kentucky:									
Covington.....	58,309	1	1	1	0	0	23	0	5
Louisville.....	305,935	1	3	1	0	0	68	0	10
Tennessee:									
Memphis.....	174,533	15	2	4	0	0	318	5	4
Nashville.....	136,220	0	0	0	0	3	21	1	7
Alabama:									
Birmingham.....	205,670	7	1	1	3	3	127	1	7
Mobile.....	65,955	3	0	0	1	1	0	0	0
Montgomery.....	46,481	3	0	0	0	0	16	6	0
WEST SOUTH CENTRAL									
Arkansas:									
Fort Smith.....	31,543	3	0	0	0	-----	2	0	-----
Little Rock.....	74,216	8	1	0	0	0	24	0	0
Louisiana:									
New Orleans.....	414,493	6	6	3	3	3	2	0	7
Shreveport.....	57,857	1	0	0	0	0	1	14	4
Oklahoma:									
Oklahoma City.....	(1)	0	1	0	3	0	4	0	2
Texas:									
Dallas.....	194,430	24	3	1	1	1	2	0	3
Galveston.....	48,375	0	0	1	0	0	0	0	0
Houston.....	161,954	3	2	4	0	0	1	1	1
San Antonio.....	198,069	1	0	2	0	1	1	0	4
MOUNTAIN									
Montana:									
Billings.....	17,971	0	0	0	0	0	0	0	1
Great Falls.....	29,883	7	1	0	0	0	58	1	0
Helena.....	12,037	0	0	0	0	0	0	0	0
Missoula.....	12,668	1	0	0	0	0	1	0	1
Idaho:									
Boise.....	23,042	0	1	0	0	0	0	0	1

(1) No estimate made.

## City reports for week ended May 22, 1926—Continued

Division, State, and city	Population July 1, 1925, estimated	Chick- en pox, cases re- ported	Diphtheria		Influenza		Meas- les, cases re- ported	Mumps, cases re- ported	Pneu- monia, deaths re- ported
			Cases, es- timated ex- pectancy	Cases re- ported	Cases re- ported	Deaths re- ported			
MOUNTAIN—continued									
Colorado									
Denver.....	280,911	44	10	9	0	38	1	1	
Pueblo.....	43,787	10	1	1	0	25	0	1	
New Mexico:									
Albuquerque.....	21,000	11	1	2	0	1	4	2	
Arizona:									
Phoenix.....	38,669	0	0	0	0	1	0	0	
Utah:									
Salt Lake City.....	130,948	3	4	0	30			5	
Nevada:									
Reno.....	12,665	0	0	0	0	0	0	0	
PACIFIC									
Washington:									
Seattle.....	(1)	15	5	4	0	39	28		
Spokane.....	108,897	15	2	1	0	0	0		
Tacoma.....	104,455	8	1	3	0	8	0	1	
Oregon:									
Portland.....	282,383	25	4	3	1	49	7	3	
California:									
Los Angeles.....	(1)	31	33	37	4	14	14	0	
Sacramento.....	72,260	6	2	3	0	0	2	1	
San Francisco.....	557,530	43	19	13	0	196	21	4	

Division, State, and city	Scarlet fever		Smallpox			Tuber- culosis, deaths re-ported	Typhoid fever			Whoop- ing, cough, cases re-ported	Deaths, all causes
	Cases, esti- mated expect- ancy	Cases re- ported	Cases, esti- mated expect- ancy	Cases re- ported	Deaths re- ported		Cases, esti- mated expect- ancy	Cases re- ported	Deaths re- ported		
NEW ENGLAND											
Maine:											
Portland.....	1	2	0	0	0	2	0	0	0	8	17
New Hampshire:											
Concord.....	1	1	0	0	0	2	0	0	0	0	16
Vermont:											
Barre.....	0	0	0	0	0	3	0	0	0	0	8
Burlington.....	0	2	0	0	0	0	0	0	0	0	11
Massachusetts:											
Boston.....	51	68	0	0	0	24	2	1	0	68	245
Fall River.....	3	3	0	0	0	1	1	0	0	5	26
Springfield.....	6	4	0	0	0	4	0	0	0	6	36
Worcester.....	8	5	0	0	0	3	0	1	0	12	59
Rhode Island:											
Pawtucket.....	1	1	0	0	0	2	0	0	0	2	18
Providence.....	0	6	0	0	0	5	0	0	0	3	73
Connecticut:											
Bridgeport.....	6	16	0	0	0	1	0	1	0	3	33
Hartford.....	4	9	0	0	0	3	1	1	0	1	45
New Haven.....	5	7	0	0	0	1	0	0	0	16	27
MIDDLE ATLANTIC											
New York:											
Buffalo.....	18	16	0	0	0	6	1	1	1	35	152
New York.....	240	277	0	0	0	118	11	10	0	75	1,546
Rochester.....	14	10	0	0	0	1	0	0	0	6	108
Syracuse.....	11	2	0	0	0	1	0	0	0	14	49
New Jersey:											
Camden.....	4	5	0	0	0	3	1	0	0	6	38
Newark.....	18	41	0	0	0	10	0	0	0	26	111
Trenton.....	2	5	0	0	0	5	0	0	0	1	40
Pennsylvania:											
Philadelphia.....	75	102	1	0	0	43	5	3	0	55	518
Pittsburgh.....	27	43	0	0	0	6	1	0	0	83	165
Reading.....	2	13	0	0	0	2	0	1	0	4	30

<sup>1</sup> Pulmonary tuberculosis only.

## City reports for week ended May 22, 1926—Continued

Division, State, and city	Scarlet fever		Smallpox			Tuber- cul- osis, deaths re- ported	Typhoid fever			Whoop- ing cough, cases re- ported	Deaths, all causes
	Cases, esti- mated expect- ancy	Cases re- ported	Cases, esti- mated expect- ancy	Cases re- ported	Deaths re- ported		Cases, esti- mated expect- ancy	Cases re- ported	Deaths re- ported		
EAST NORTH CEN- TRAL											
Ohio:											
Cincinnati.....	13	20	2	2	0	11	1	0	0	23	140
Cleveland.....	20	88	1	0	0	24	2	0	0	85	194
Columbus.....	8	18	2	1	0	3	1	1	0	17	66
Toledo.....	13	8	4	0	0	7	0	0	1	41	75
Indiana:											
Fort Wayne.....	3	9	3	1	0	0	0	0	0	0	14
Indianapolis.....	11	17	9	19	0	7	0	2	1	44	114
South Bend.....	4	2	2	0	0	1	0	0	0	12	18
Terre Haute.....	3	3	1	0	0	0	0	0	0	3	18
Illinois:											
Chicago.....	108	137	2	2	1	40	3	1	0	64	659
Peoria.....	3	1	1	0	0	0	0	0	0	4	19
Springfield.....	1	3	1	0	0	1	0	0	0	8	22
Michigan:											
Detroit.....	74	149	3	0	0	41	3	2	0	32	349
Flint.....	5	7	2	0	0	1	1	1	0	11	35
Grand Rapids.....	6	23	0	1	0	1	0	0	0	17	32
Wisconsin:											
Kenosha.....	1	1	1	0	0	1	0	0	0	3	9
Madison.....	2	2	1	0	0	0	0	0	0	2	5
Milwaukee.....	22	15	5	0	0	9	0	0	0	53	120
Racine.....	5	2	1	0	0	1	0	0	0	7	14
Superior.....	2	6	2	0	0	1	0	0	0	0	6
WEST NORTH CEN- TRAL											
Minnesota:											
Duluth.....	4	23	2	0	0	0	0	0	0	5	20
Minneapolis.....	29	65	9	0	0	5	0	0	0	4	93
St. Paul.....	22	38	4	0	0	6	1	0	0	69	52
Iowa:											
Davenport.....	1	2	5	0	0	0	1	0	0	0	0
Des Moines.....	6	6	3	0	0	0	0	0	0	0	0
Sioux City.....	2	7	1	0	0	0	0	0	0	2	0
Waterloo.....	2	0	1	1	0	0	0	0	0	15	0
Missouri:											
Kansas City.....	8	2	2	0	0	0	1	0	0	2	38
St. Joseph.....	2	6	1	0	0	0	0	0	0	0	0
St. Louis.....	30	123	4	8	0	7	2	2	0	52	210
North Dakota:											
Fargo.....	1	3	0	0	0	0	0	0	0	1	1
Grand Forks.....	0	0	1	0	0	0	0	0	0	0	0
South Dakota:											
Aberdeen.....	1	5	0	0	0	0	0	0	0	14	0
Sioux Falls.....	1	5	1	0	0	0	0	0	0	0	3
Nebraska:											
Lincoln.....	1	3	1	1	0	0	0	0	0	3	17
Omaha.....	4	71	5	5	0	2	0	1	0	1	54
Kansas:											
Topeka.....	2	9	0	0	0	0	0	0	0	9	28
Wichita.....	2	0	3	0	0	0	0	0	0	12	15
SOUTH ATLANTIC											
Delaware:											
Wilmington.....	4	5	0	0	0	0	0	0	0	0	30
Maryland:											
Baltimore.....	26	33	0	0	0	16	3	3	0	40	259
Cumberland.....	0	1	0	0	0	0	0	0	0	1	10
Frederick.....	1	0	0	0	0	0	0	0	0	0	3
District of Col.:											
Washington.....	19	39	2	0	0	15	1	2	1	52	152
Virginia:											
Lynchburg.....	0	3	1	0	0	0	1	0	0	4	10
Norfolk.....	1	9	0	1	0	3	0	0	0	18	0
Richmond.....	3	9	0	0	0	3	0	0	0	1	53
Roanoke.....	1	0	0	0	0	0	0	0	0	0	16
West Virginia:											
Charleston.....	1	0	1	0	0	0	0	0	0	2	12
Huntington.....	0	1	1	0	0	3	0	0	0	0	13
Wheeling.....	2	1	0	1	0	1	1	0	0	1	21

## City reports for week ended May 22, 1926—Continued

Division, State, and city	Scarlet fever		Smallpox			Tuber- culo- sis, deaths re- ported	Typhoid fever			Whoop- ing cough, cases re- ported	Deaths, all causes
	Cases, esti- mated expect- ancy	Cases re- ported	Cases, esti- mated expect- ancy	Cases re- ported	Deaths re- ported		Cases, esti- mated expect- ancy	Cases re- ported	Deaths re- ported		
SOUTH ATLANTIC— continued											
North Carolina:											
Raleigh.....	0	0	1	0	0	1	0	0	0	8	9
Wilmington.....	0	0	1	0	0	0	0	0	0	3	8
Winston-Salem.....	1	1	4	0	0	2	0	1	0	1	12
South Carolina:											
Charleston.....	0	0	0	3	0	0	0	6	0	5	33
Columbia.....	0	1	1	0	0	0	1	0	0	1	4
Greenville.....	0	0	0	0	0	0	0	0	0	3	4
Georgia:											
Atlanta.....	4	2	5	1	0	3	0	3	2	5	81
Brunswick.....	0	0	1	2	0	1	0	0	0	0	4
Savannah.....	1	0	0	2	0	1	1	0	0	0	26
Florida:											
Miami.....		1		0		1		2	0	6	36
Tampa.....	0	0	0	3	0	0	1	2	0	3	36
EAST SOUTH CENTRAL											
Kentucky:											
Covington.....	1	2	0	0	0	5	1	0	0	0	23
Louisville.....	5	7	1	0	0	7	1	2	0	7	85
Tennessee:											
Memphis.....	4	16	3	9	0	12	1	0	0	10	64
Nashville.....	2	6	1	1	0	3	1	0	0	5	56
Alabama:											
Birmingham.....	1	2	7	2	0	5	2	0	0	18	72
Mobile.....	0	1	1	0	0	4	0	0	0	0	23
Montgomery.....	0	0	1	0	0	0	1	0	0	0	33
WEST SOUTH CEN- TRAL											
Arkansas:											
Fort Smith.....	0	0	0	0			0	0		1	
Little Rock.....	0	9	1	0	0	0	0	0	0	1	
Louisiana:											
New Orleans.....	3	19	2	6	0	15	3	3	0	4	119
Shreveport.....	0	0	2	0	0	6	0	0	0	3	20
Oklahoma:											
Oklahoma City.....	1	0	5	0	0	2	1	0	0	0	23
Texas:											
Dallas.....	2	9	2	7	0	2	1	0	0	10	45
Galveston.....	0	1	0	6	0	1	0	0	0	0	12
Houston.....	1	2	1	3	0	7	1	0	1	1	54
San Antonio.....	1	0	0	0	0	5	0	3	1	0	62
MOUNTAIN											
Montana:											
Billings.....	1	2	0	0	0	0	0	1	0	1	7
Great Falls.....	2	0	2	0	0	0	0	0	0	3	5
Helena.....	0	1	1	0	0	0	0	0	0	0	7
Missoula.....	0	0	1	0	0	0	0	0	0	0	6
Idaho:											
Boise.....	1	0	1	1	0	0	0	0	0	0	6
Colorado:											
Denver.....	11	10	1	0	0	7	0	0	0	42	50
Pueblo.....	1	3	0	0	0	1	0	0	0	0	8
New Mexico:											
Albuquerque.....	0	4	0	0	0	4	0	0	0	11	17
Arizona:											
Phoenix.....	1	1	0	0	0	8	0	1	0	0	22
Utah:											
Salt Lake City.....	2	3	0	1	0	0	0	0	0		36
Nevada:											
Reno.....	0	0	0	0	0	0	0	0	0	0	1
PACIFIC											
Washington:											
Seattle.....	8	21	3	1			1	1		3	
Spokane.....	3	33	5	0			0	1		18	
Tacoma.....	2	3	1	4	0	1	0	0	0	7	25
Oregon:											
Portland.....	7	26	8	14	0	3	0	0	0	1	58
California:											
Los Angeles.....	17	33	4	10	2	34	1	0	0	7	216
Sacramento.....	1	1	0	3	0	3	0	4	0	0	22
San Francisco.....	14	18	2	1	0	7	1	1	0	5	124

## City reports for week ended May 22, 1926—Continued

Division, State, and city	Cerebrospinal meningitis		Lethargic encephalitis		Pellagra		Poliomyelitis (infantile paralysis)		
	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases, estimated expectancy	Cases	Deaths
<b>NEW ENGLAND</b>									
Massachusetts:									
Boston.....	1	1	0	0	0	0	0	0	0
Fall River.....	0	0	1	0	0	0	0	0	0
<b>MIDDLE ATLANTIC</b>									
New York:									
Buffalo.....	1	0	0	0	0	0	0	0	0
New York.....	2	6	5	4	0	0	1	1	1
Pennsylvania:									
Philadelphia.....	1	1	1	0	0	0	1	0	0
Pittsburgh.....	0	0	0	1	0	0	0	0	0
<b>EAST NORTH CENTRAL</b>									
Illinois:									
Chicago.....	0	0	1	0	0	0	0	0	0
Michigan:									
Detroit.....	1	0	0	0	0	0	0	1	1
Grand Rapids.....	0	0	0	1	0	0	0	0	0
<b>SOUTH ATLANTIC</b>									
Maryland:									
Baltimore.....	0	0	1	2	0	0	1	0	0
District of Columbia:									
Washington.....	0	0	2	1	0	0	0	0	0
Virginia:									
Richmond.....	0	0	0	0	0	0	0	1	0
North Carolina:									
Raleigh.....	0	0	0	0	0	1	0	0	0
South Carolina:									
Charleston.....	0	0	0	0	5	3	0	0	0
Georgia:									
Atlanta.....	1	0	0	0	0	0	0	0	0
Florida:									
Tampa.....	1	0	0	0	1	1	0	0	0
<b>EAST SOUTH CENTRAL</b>									
Tennessee:									
Memphis.....	0	0	0	0	0	1	0	0	0
Alabama:									
Birmingham.....	0	0	1	0	0	2	0	0	0
<b>WEST SOUTH CENTRAL</b>									
Louisiana:									
New Orleans.....	0	0	0	0	2	1	0	0	0
Shreveport.....	0	0	0	0	0	1	0	0	0
Texas:									
Dallas.....	0	0	0	0	0	1	0	0	0
<b>MOUNTAIN<sup>1</sup></b>									
<b>PACIFIC</b>									
Washington:									
Seattle.....	2	-----	0	-----	0	-----	0	0	-----
Spokane.....	4	-----	0	-----	0	-----	0	0	-----
California:									
Los Angeles.....	1	1	1	0	0	0	0	0	0
Sacramento.....	0	0	0	0	1	0	0	0	0
San Francisco.....	0	0	1	2	0	0	1	0	0

<sup>1</sup> Rocky Mountain spotted fever, 1 case and 1 death at Billings, Mont.

The following table gives the rates per 100,000 population for 108 cities for the five-week period ended May 22, 1926, compared with those for a like period ended May 23, 1925. The population

figures used in computing the rates are approximate estimates as of July 1, 1925 and 1926, respectively, authoritative figures for many of the cities not being available. The 103 cities reporting cases had an estimated aggregate population of nearly 30,000,000 in 1925 and nearly 30,500,000 in 1926. The 96 cities reporting deaths had more than 29,250,000 estimated population in 1925 and more than 29,750,000 in 1926. The number of cities included in each group and the estimated aggregate populations are shown in a separate table below.

*Summary of weekly reports from cities, April 18 to May 22, 1926—Annual rates per 100,000 population—Compared with rates for the corresponding period of 1925<sup>1</sup>*

## DIPHTHERIA CASE RATES

	Week ended									
	Apr. 25, 1925	Apr. 24, 1926	May 2, 1925	May 1, 1926	May 9, 1925	May 8, 1926	May 16, 1925	May 15, 1926	May 23, 1925	May 22, 1926
103 cities.....	155	118	152	110	<sup>2</sup> 152	<sup>1</sup> 114	<sup>4</sup> 158	<sup>5</sup> 122	148	<sup>6</sup> 119
New England.....	139	73	122	83	105	106	149	87	122	<sup>7</sup> 79
Middle Atlantic.....	217	162	212	114	211	125	237	135	202	138
East North Central.....	106	87	102	97	106	89	<sup>8</sup> 102	96	101	117
West North Central.....	181	178	195	200	269	<sup>9</sup> 195	205	<sup>5</sup> 228	243	<sup>6</sup> 167
South Atlantic.....	102	68	98	68	98	75	81	77	83	71
East South Central.....	37	26	37	73	11	62	32	52	37	36
West South Central.....	75	47	60	50	62	60	53	82	40	47
Mountain.....	259	82	111	118	102	146	148	182	129	127
Pacific.....	157	146	195	154	<sup>2</sup> 117	<sup>10</sup> 165	<sup>10</sup> 132	175	157	164

## MEASLES CASE RATES

103 cities.....	620	1,790	559	1,706	<sup>2</sup> 603	<sup>3</sup> 1,718	<sup>4</sup> 599	<sup>5</sup> 1,557	579	<sup>6</sup> 1,440
New England.....	1,174	1,066	968	1,529	949	1,714	1,145	1,198	1,014	<sup>7</sup> 1,087
Middle Atlantic.....	779	1,593	731	1,417	793	1,429	765	1,198	615	1,133
East North Central.....	833	1,457	706	1,486	830	1,454	<sup>8</sup> 795	1,371	888	<sup>9</sup> 1,372
West North Central.....	98	4,079	76	3,988	109	<sup>4</sup> 4,458	76	<sup>4</sup> 4,451	233	<sup>5</sup> 3,338
South Atlantic.....	278	2,538	288	2,528	227	1,942	311	1,933	309	1,650
East South Central.....	173	3,445	184	2,885	315	3,248	162	3,461	310	2,999
West South Central.....	35	163	26	159	31	125	13	155	22	142
Mountain.....	213	1,074	518	865	176	883	55	1,303	176	1,384
Pacific.....	193	504	155	669	<sup>2</sup> 91	<sup>10</sup> 690	<sup>10</sup> 170	679	124	603

## SCARLET FEVER CASE RATES

103 cities.....	438	283	297	292	<sup>2</sup> 311	<sup>3</sup> 294	<sup>4</sup> 338	<sup>5</sup> 326	207	<sup>6</sup> 311
New England.....	393	222	415	281	400	222	345	312	338	<sup>7</sup> 289
Middle Atlantic.....	335	201	322	221	318	217	330	249	264	256
East North Central.....	410	287	302	289	341	310	<sup>8</sup> 368	356	388	341
West North Central.....	671	883	502	867	599	<sup>9</sup> 933	705	<sup>5</sup> 953	530	<sup>6</sup> 813
South Atlantic.....	165	160	125	218	100	177	156	222	138	195
East South Central.....	236	228	242	171	242	187	299	202	226	176
West South Central.....	114	172	105	140	84	176	70	155	44	172
Mountain.....	388	209	<sup>3</sup> 324	218	268	137	342	246	314	173
Pacific.....	141	262	119	205	<sup>2</sup> 144	<sup>10</sup> 197	<sup>10</sup> 187	259	155	294

<sup>1</sup> The figures given in this table are rates per 100,000 population, annual basis, and not the number of cases reported. Populations used are estimated as of July 1, 1925 and 1926, respectively.

<sup>2</sup> Spokane, Wash., not included.

<sup>3</sup> Grand Forks, N. Dak., and Tacoma, Wash., not included.

<sup>4</sup> Superior, Wis., and Tacoma, Wash., not included.

<sup>5</sup> Kansas City, Mo., and Grand Forks, N. Dak., not included.

<sup>6</sup> Concord, N. H., Kansas City, Mo., and Grand Forks, N. Dak., not included.

<sup>7</sup> Concord, N. H., not included.

<sup>8</sup> Superior, Wis., not included.

<sup>9</sup> Grand Forks, N. Dak., not included.

<sup>10</sup> Tacoma, Wash., not included.

Summary of weekly reports from cities, April 18 to May 22, 1926—Annual rates per 100,000 population—Compared with rates for the corresponding period of 1925—Continued

## SMALLPOX CASE RATES

	Week ended									
	Apr. 25, 1925	Apr. 24, 1926	May 1, 1925	May 1, 1926	May 8, 1925	May 8, 1926	May 15, 1925	May 15, 1926	May 22, 1925	May 22, 1926
103 cities.....	60	31	48	26	<sup>2</sup> 45	<sup>2</sup> 26	<sup>4</sup> 44	<sup>4</sup> 26	58	<sup>6</sup> 10
New England.....	2	0	0	0	2	0	0	0	0	<sup>7</sup> 0
Middle Atlantic.....	12	0	8	0	6	0	7	0	2	0
East North Central.....	37	22	29	19	41	22	<sup>8</sup> 53	20	60	18
West North Central.....	86	44	72	32	58	<sup>6</sup> 58	<sup>7</sup> 42	<sup>6</sup> 42	60	<sup>5</sup> 33
South Atlantic.....	75	47	60	28	42	30	35	39	61	24
East South Central.....	420	99	399	99	347	73	173	119	404	62
West South Central.....	40	112	31	146	26	159	35	116	123	95
Mountain.....	28	46	9	36	46	36	28	55	28	18
Pacific.....	251	140	196	102	<sup>2</sup> 167	<sup>10</sup> 54	<sup>10</sup> 181	67	177	51

## TYPHOID FEVER CASE RATES

103 cities.....	16	8	17	9	<sup>2</sup> 13	<sup>3</sup> 8	<sup>4</sup> 13	<sup>5</sup> 8	18	<sup>6</sup> 11
New England.....	17	5	10	5	5	9	12	0	24	<sup>7</sup> 10
Middle Atlantic.....	14	8	22	6	13	7	10	10	19	7
East North Central.....	6	1	4	4	8	4	<sup>8</sup> 6	5	5	5
West North Central.....	6	6	12	6	2	<sup>9</sup> 6	0	<sup>5</sup> 2	4	<sup>5</sup> 7
South Atlantic.....	13	8	27	19	27	13	25	4	36	32
East South Central.....	74	26	42	21	42	16	68	0	68	10
West South Central.....	48	26	48	17	44	17	75	43	62	26
Mountain.....	28	0	0	18	0	0	0	9	18	9
Pacific.....	22	22	17	27	<sup>9</sup> 9	<sup>10</sup> 9	<sup>10</sup> 3	8	6	19

## INFLUENZA DEATH RATES

96 cities.....	29	38	21	33	14	<sup>10</sup> 25	<sup>10</sup> 14	<sup>11</sup> 16	14	<sup>12</sup> 15
New England.....	29	40	19	35	10	14	7	5	6	<sup>7</sup> 12
Middle Atlantic.....	17	34	14	27	10	22	12	17	11	10
East North Central.....	31	42	21	46	15	29	10	18	11	18
West North Central.....	47	31	30	17	11	13	11	<sup>11</sup> 7	17	<sup>11</sup> 5
South Atlantic.....	40	30	25	28	19	19	10	17	6	11
East South Central.....	79	104	47	99	47	99	74	31	79	36
West South Central.....	24	66	29	28	15	47	19	28	19	24
Mountain.....	74	46	46	0	18	18	55	18	18	0
Pacific.....	11	4	11	11	15	<sup>10</sup> 4	<sup>10</sup> 12	4	22	4

## PNEUMONIA DEATH RATES

96 cities.....	196	201	160	177	145	<sup>10</sup> 164	<sup>10</sup> 123	<sup>11</sup> 150	123	<sup>12</sup> 140
New England.....	180	234	141	210	155	170	129	165	110	<sup>7</sup> 135
Middle Atlantic.....	222	240	206	219	184	174	143	165	143	173
East North Central.....	199	191	138	152	123	175	118	147	116	133
West North Central.....	131	136	70	106	74	121	55	<sup>11</sup> 79	76	<sup>11</sup> 83
South Atlantic.....	180	205	160	177	148	169	129	182	125	148
East South Central.....	263	259	179	233	147	223	152	182	126	171
West South Central.....	150	187	121	161	131	118	106	137	73	90
Mountain.....	213	109	120	118	120	82	157	91	166	82
Pacific.....	181	71	113	75	100	<sup>10</sup> 84	<sup>10</sup> 75	92	120	53

<sup>2</sup> Spokane, Wash., not included.

<sup>3</sup> Grand Fork, N. Dak., and Tacoma, Wash., not included.

<sup>4</sup> Superior, Wis., and Tacoma, not included.

<sup>5</sup> Kansas City, Mo., and Grand Forks, N. Dak., not included.

<sup>6</sup> Concord, N. H., Kansas City, Mo., and Grand Forks, N. Dak., not included.

<sup>7</sup> Concord, N. H., not included.

<sup>8</sup> Superior, Wis., not included.

<sup>9</sup> Grand Forks, N. Dak., not included.

<sup>10</sup> Tacoma, Wash., not included.

<sup>11</sup> Kansas City, Mo., not included.

<sup>12</sup> Concord, N. H., and Kansas City, Mo., not included.



*Number of cities included in summary of weekly reports, and aggregate population of cities in each group, approximated as of July 1, 1925 and 1926, respectively*

Group of cities	Number of cities reporting cases	Number of cities reporting deaths	Aggregate population of cities reporting cases		Aggregate population of cities reporting deaths	
			1925	1926	1925	1926
Total.....	103	96	29,944,996	30,473,129	29,251,658	29,764,201
New England.....	12	12	2,176,124	2,206,124	2,176,124	2,208,124
Middle Atlantic.....	10	10	10,346,970	10,476,970	10,346,970	10,476,970
East North Central.....	16	16	7,481,656	7,655,436	7,481,656	7,655,436
West North Central.....	14	11	2,594,962	2,634,662	2,401,380	2,499,039
South Atlantic.....	21	21	2,716,070	2,776,070	2,716,070	2,776,070
East South Central.....	7	7	993,103	1,004,953	993,103	1,004,953
West South Central.....	8	6	1,184,057	1,212,057	1,078,198	1,103,095
Mountain.....	9	9	563,912	572,773	563,912	572,773
Pacific.....	6	4	1,888,142	1,934,094	1,434,245	1,469,144

## FOREIGN AND INSULAR

### THE FAR EAST

*Report for week ended May 15, 1926.*—The following report for the week ended May 15, 1926, was transmitted by the Far Eastern Bureau of the Health Section of the League of Nations' Secretariat, located at Singapore, to the headquarters at Geneva.

Maritime towns	Plague		Cholera		Small-pox		Maritime towns	Plague		Cholera		Small-pox	
	Cases	Deaths	Cases	Deaths	Cases	Deaths		Cases	Deaths	Cases	Deaths	Cases	Deaths
Egypt:							Hongkong.....	0	0	0	0	2	2
Suez.....	1	0	0	0	0	0	China:						
Iraq:							Shanghai.....	0	0	0	0	2	2
Basra.....	0	0	0	0	8	6	Amoy.....	5	3	0	0	2	0
British India:							Sarawak:						
Calcutta.....	0	0	45	19	12	12	Kuching.....	0	0	0	0	2	0
Bombay.....	3	0	0	32	12	12	Japan:						
Madras.....	0	0	1	4	0	0	Osaka.....	0	0	0	0	1	0
Karachi.....	0	0	0	17	7	7	Kwantung:						
Negapatam.....	3	0	1	2	1	1	Dairen.....	0	0	0	0	3	0
Siam:							Port Arthur.....	0	0	0	0	5	1
Bangkok.....	0	0	324	173	1	1	Asiatic Russia:						
French Indo-China:							Vladivostok.....	0	0	0	0	1	0
Saigon and Cholon.....	0	0	15	1	1	0							
Turane.....	0	0	0	0	1	0							

Telegraphic reports from the following maritime towns indicated that no case of plague, cholera, or smallpox was reported during the week:

#### ASIA

*British India.*—Chittagong, Cochin, Tuticorin, Vizagapatam.

*Ceylon.*—Colombo.

*Federated Malay States.*—Port Swettenham.

*Straits Settlements.*—Penang, Singapore.

*Dutch East Indies.*—Batavia, Surabaya, Samarang, Cheribon, Belawan Deli, Palembang, Sabang, Makassar, Menado, Banjarmasin, Balikpapan, Pontianak.

*British North Borneo.*—Sandakan.

*Portuguese Timor.*—Dilly.

*Philippine Islands.*—Manila, Iloilo, Jolo, Cebu, Zamboanga.

*French Indo-China.*—Haiphong.

*Formosa.*—Kaelung.

*Japan.*—Nagasaki, Yokohama, Simonoseki, Moji, Kobe, Niigata, Tsuruga, Hakodate.

*Korea.*—Chemulpo, Fusan.

*Manchuria.*—Antung, Mukden, Changchun, Harbin.

## AUSTRALASIA AND OCEANIA

*Australia*.—Adelaide, Melbourne, Sydney, Brisbane, Rockhampton, Townsville, Port Darwin, Broome, Fremantle.

*New Guinea*.—Port Moresby.

*New Zealand*.—Auckland, Wellington, Christchurch, Invercargill, Dunedin.

*New Caledonia*.—Noumea.

*Hawaii*.—Honolulu.

## AFRICA

*Egypt*.—Alexandria, Port Said.

*Anglo-Egyptian Sudan*.—Port Sudan.

*Eritrea*.—Massawa.

*French Somaliland*.—Djibuti.

*British Somaliland*.—Berbera.

*Italian Somaliland*.—Mogadiscio.

*Kenya*.—Mombasa.

*Tanganyika*.—Dar-es-Salaam.

*Seychelles*.—Victoria.

*Mauritius*.—Port Louis.

*Portuguese East Africa*.—Mozambique, Lorenzo Marques.

*Union of South Africa*.—Durban, East London, Port Elizabeth, Cape Town.

Reports had not been received in time for distribution from—

*British India*.—Rangoon.

*Dutch East Indies*.—Padang, Tarakan.

*Zanzibar*.—Zanzibar.

*Madagascar*.—Tamatave, Majunga.

## CUBA

*Communicable diseases—Habana—March, 1926*.—During March, 1926, communicable diseases were reported at Habana, Cuba, as follows:

Disease	New cases	Deaths	Re- main- ing under treat- ment Mar. 31, 1926	Disease	New cases	Deaths	Re- main- ing under treat- ment Mar. 31, 1926
Cerebrospinal meningitis.....	1	-----	1	Malaria <sup>1</sup> .....	38	-----	10
Chicken pox.....	57	-----	29	Measles.....	161	4	55
Diphtheria.....	17	3	2	Scarlet fever.....	31	1	16
Leprosy.....	1	-----	7	Typhoid fever <sup>1</sup> .....	30	8	27

<sup>1</sup> Many of these cases from the interior.

## ECUADOR

*Plague—Guayaquil—April 16–30, 1926–May 1–15, 1926*.—Plague has been reported in Ecuador as follows: Guayaquil—April 16 to 30, 1926, cases, 2; deaths, 1; May 1 to 15, 1926, 1 case.

*Plague rats found.*—During the same period, out of 10,291 rats taken from April 16 to 30, 51 rats were found plague infected and for the period May 1 to 15, out of 9,749 rats taken, 23 were found infected.

### EGYPT

*Plague—April 16-22, 1926—Summary.*—During the week ended April 22, 1926, 6 cases of plague were reported in Egypt. Of these, the urban occurrence was as follows: Alexandria 1 case; Sucz, 3 cases. From January 1 to April 22, 1926, there were reported 16 cases as compared with 24 cases reported for the corresponding period of the year 1925.

### LATVIA

*Communicable diseases—March, 1926.*—During the month of March, 1926, communicable diseases were reported in the Republic of Latvia as follows:

Disease	Cases	Disease	Cases
Cerebrospinal meningitis.....	1	Rabies.....	1
Diphtheria.....	51	Scarlet fever.....	404
Dysentery.....	3	Trachoma.....	65
Leprosy.....	2	Typhoid fever.....	69
Measles.....	331	Typhus fever.....	2
Mumps.....	136	Whooping cough.....	65
Puerperal fever.....	7		

Population, February 10, 1925; 1,844,805.

### UNION OF SOUTH AFRICA

*Plague—April 11-17, 1926.*—During the week ended April 17, 1926, 4 cases of plague with 3 deaths were reported in the Union of South Africa. Of these, 2 fatal cases occurred in Cradock District, Cape Province, and 2 cases with 1 death in Hoopstad District, Orange Free State. The occurrence was on farms and was in the native population.

*Typhus fever—March, 1926.*—During the month of March, 1926, 37 cases of typhus fever with 1 death were reported in the Union of South Africa. During the week ended April 17, 1926, the occurrence of a sporadic case of typhus fever was reported at Beaconsfield, Kimberley Location, Cape Province, and outbreaks of the disease were reported on farms in Molteno and Steynsburg districts, Cape Province.

**CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER**

The reports contained in the following tables must not be considered as complete or final as regards either the lists of countries included or the figures for the particular countries for which reports are given.

**Reports Received During Week Ended June 11, 1926<sup>1</sup>****CHOLERA**

Place	Date	Cases	Deaths	Remarks
French Settlements in India.....	-----	-----	-----	Jan. 1-Mar. 6, 1926: Cases, 435; deaths, 349.
India.....	-----	-----	-----	Apr. 4-10, 1926: Cases, 4,441; deaths, 2,766.

**PLAGUE**

Ceylon:				
Colombo.....	Apr. 18-24.....	1	1	
Ecuador:				
Guayaquil.....	Apr. 16-30.....	2	1	Rats taken, 10,291; infected, 51.
Do.....	May 1-15.....	1	-----	Rats taken, 9,749; infected, 23.
Egypt:				
Alexandria.....	Apr. 16-22.....	1	-----	Apr. 16-22, 1926: Cases, 6.
Suez.....	do.....	3	-----	Jan. 1-Apr. 22, 1926, total 16 cases.
India.....	-----	-----	-----	Corresponding period, year 1925: cases, 24.
Madras.....	Apr. 4-10.....	17	11	Apr. 4-10, 1926: Cases, 11,307; deaths, 6,364.
Java:				Presidency.
Surabaya.....	Apr. 4-10.....	1	1	
Morocco:				
Tangier.....	May 9-15.....	1	1	
Russia.....	-----	-----	-----	Dec. 1-31, 1926: Cases, 39.
Union of South Africa.....	-----	-----	-----	Apr. 11-17, 1926: Cases, 4; deaths, 3.
Cape Province.....	-----	-----	-----	Natives, on farms.
Cradoek District.....	Apr. 11-17.....	2	2	
Orange Free State.....	-----	-----	-----	
Hoopstad District.....	do.....	2	1	

<sup>1</sup> From medical officers of the Public Health Service, American consuls, and other sources.

**SMALLPOX**

Canada.....	-----	-----	-----	Feb. 28-May 8, 1926: Cases, 252.
China:				
Manchuria—				
An-Shan.....	Apr. 25-May 1.....	2	-----	South Manchuria Railway.
Changchun.....	do.....	28	1	Do.
Dairen.....	Apr. 6-11.....	3	-----	Do.
Fushun.....	Apr. 25-May 1.....	2	-----	Do.
Harbin.....	Apr. 23-May 6.....	16	-----	Do.
Kai-yuan.....	Apr. 25-May 1.....	3	-----	Do.
Kungchuling.....	do.....	1	-----	Do.
Siping-kai.....	do.....	2	-----	Do.
Shanghai.....	Apr. 18-May 1.....	6	3	Cases, foreign; deaths, foreign and native.
Curacao.....	May 3-9.....	1	-----	From Trinidad.
France.....	Feb. 1-28.....	39	-----	
French settlements in India.....	Jan. 3-Mar. 6.....	167	159	
Gold Coast.....	Feb. 1-28.....	97	2	
Great Britain:				
England and Wales.....	-----	-----	-----	Apr. 25-May 1, 1926: Cases, 4,290.
Bradford.....	May 9-15.....	2	-----	
Greece:				
Saloniki.....	Apr. 6-12.....	-----	1	
India.....	-----	-----	-----	Apr. 4-10, 1926: Cases, 7,740; deaths, 1,770.
Karachi.....	Apr. 25-May 1.....	11	5	
Madras.....	do.....	8	1	
Italy.....	-----	-----	-----	Feb. 21-Mar. 27, 1926: Cases, 12.
Java:				
East Java and Madoera.....	Mar. 28-Apr. 10.....	9	-----	
Martinique:				
Port de France.....	Apr. 11-May 1.....	6	-----	Alastrim.
Mexico:				
Aguaascalientes.....	May 16-22.....	-----	2	
Camargo.....	May 22.....	2	-----	
Ciudad Juarez.....	May 18-24.....	-----	1	

# **CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued**

## **Reports Received During Week Ended June 11, 1926—Continued**

### **SMALLPOX—Continued**

Place	Date	Cases	Deaths	Remarks
Mexico—Continued.				
Mexico City.....	May 2-15.....	15		Including municipalities in Federal District.
San Luis Potosi.....	May 16-22.....		5	
Poland.....				Feb. 14-Mar. 27, 1926: Cases, 16.
Russia.....				Dec. 1-31, 1925: Cases, 345.
Switzerland.....				Feb. 28-Apr. 3, 1926: Cases, 3.
Tripolitania.....				Feb. 1-28, 1926: Cases, 9.
Tunisia.....				Jan. 1-Mar. 31, 1926: Cases, 123.

### **TYPHUS FEVER**

Bulgaria.....				Feb. 1-28, 1926: Cases, 70; deaths, 7.
Chosen.....				Jan. 1-31, 1926: Cases, 139; deaths, 14.
Czechoslovakia.....				Feb. 1-28, 1926: Cases, 35.
Egypt.....				
Port Said.....	Apr. 16-22.....	1		
Estonia.....				Feb. 1-28, 1926: Cases, 8.
Ireland (Irish Free State): Tipperary County— Cashel District.....	May 9-15.....	1		
Italy.....				Feb. 21-Mar. 27, 1926: Cases, 28.
Latvia.....				Feb. 1-28, 1926: Cases, 18.
Do.....				Mar. 1-31, 1926: Cases, 2.
Lithuania.....				Feb. 1-28, 1926: Cases, 46; deaths, 3.
Morocco.....				Feb. 1-28, 1926: Cases, 73.
Poland.....				Mar. 27, 1926: Cases, 857; deaths, 69.
Rumania.....				Jan. 1-Feb. 28, 1926: Cases, 324; deaths, 21.
Russia.....				Dec. 1-31, 1925: Cases, 3,273.
Tunisia.....				Jan. 1-Mar. 31, 1926: Cases, 180.
Tunis.....	May 1-10.....	3		
Union of South Africa.....				March, 1926: Cases, 37; deaths, 1.
Cape Province.....				Of these, 2 cases in Europeans.
Kimberley District.....	Apr. 11-17.....	1		Mar. 1-31, 1926: Cases, 32; deaths, 1. Native.
Molteno district.....	do.....			At Beaconsfield Location. Sporadic.
Steynsburg district.....	do.....			Outbreaks.
Natal.....	do.....			Do.
Transvaal.....				Mar. 1-31, 1926: Cases, 2. Native.
				Mar. 1-31, 1926: 1 case. Native.

## **Reports Received from December 26, 1925, to June 4, 1926<sup>1</sup>**

### **CHOLERA**

Place	Date	Cases	Deaths	Remarks
Chosen.....	October-November, 1925.....	12	5	
French Settlements in India.....	Dec. 1-31.....	880	712	
India.....				Oct. 18, 1925, to Jan. 2, 1926: Cases, 21,316; deaths, 12,371.
Calcutta.....	Nov. 1-28.....	101	89	Jan. 3-Mar. 13, 1926: Cases, 31,105; deaths, 17,559. Mar. 21-Apr. 3, 1926: Cases, 7,074; deaths, 3,062.
Do.....	Dec. 6-26.....		54	
Do.....	Dec. 27-Jan. 10.....		41	
Do.....	Jan. 24-Apr. 3.....	464	417	
Madras.....	Nov. 18-Jan. 2.....	174	70	
Do.....	Jan. 3-Apr. 17.....	146	90	
Rangoon.....	Nov. 8-Dec. 3.....	4	4	
Do.....	Jan. 24-Apr. 17.....	23	20	

<sup>1</sup> From medical officers of the Public Health Service, American consuls, and other sources.

# CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued

Reports Received from December 26, 1925, to June 4, 1926—Continued

## CHOLERA—Continued

Place	Date	Cases	Deaths	Remarks
Indo-China.....				September-December, 1925: Cases, 11; deaths, 7.
Province—				
Annam.....	Sept. 1-30.....	2	2	
Cambodia.....	Dec. 1-31.....	2	1	
Cochin China.....	Sept. 1-Dec. 31.....	6	4	
Saigon.....	Jan. 4-17.....	2	2	Including 100 square kilometers of surrounding country. Present.
Do.....	May 20.....			
Tonkin.....	Sept. 1-Nov. 30.....	3		
Japan.....	Aug. 30-Oct. 17.....	409		
Do.....	Oct. 25-Dec. 26.....	113		
Do.....	Jan. 17-30.....	5		
Philippine Islands:				
Manila.....	Nov. 9-Jan. 3.....	15	10	
Do.....	Jan. 4-Mar. 6.....		27	
Province—				
Bataan.....	Nov. 30-Dec. 26.....	29	25	
Do.....	Jan. 2-16.....	1	1	
Batangas.....	Jan. 24-Feb. 20.....	13	13	
Bohol.....	Jan. 23-30.....	1	1	
Bulacan.....	Oct. 18-Nov. 7.....	92	64	
Do.....	Nov. 23-Dec. 31.....	200	88	
Do.....	Jan. 2-30.....	6	6	
Laguna.....	Nov. 23-Dec. 26.....	18	14	
Do.....	Jan. 24-Feb. 6.....	5	6	
Leyte.....	Jan. 3-9.....	2	2	
Mindoro.....	Dec. 20-31.....	35	30	
Nueva Ecija.....	Nov. 30-Dec. 13.....	7	5	
Pampanga.....	Nov. 1-7.....	1	1	
Do.....	Nov. 23-Dec. 31.....	113	85	
Do.....	Jan. 2-Mar. 3.....	39	35	
Rizal.....	Sept. 27-Nov. 21.....	75	21	
Do.....	Dec. 21-30.....	14	11	
Do.....	Jan. 3-Feb. 20.....	89	30	
Romblon.....	Nov. 8-Dec. 13.....	27	14	
Russia.....	May-June.....	7		
Do.....	July-August.....	4		
Siam:				
Bangkok.....	Oct. 4-Nov. 14.....	108	68	
Do.....	Nov. 23-Dec. 28.....	270	149	
Do.....	Dec. 27-Mar. 13.....	398	275	
Do.....	Mar. 21-27.....	90	52	
Do.....	Apr. 4-10.....	102	61	
On vessel:				
Steamship.....	Oct. 3.....	9		Arrived at Bangkok, Siam: Cases in coolie passengers.

## PLAGUE

Argentina.....				Jan. 24-30, 1926; 6 cases, occur- ring in interior Provinces of Salta and Santa Fe.
Buenos Aires.....	Jan. 24-30.....	1		
Azores:				
St. Michaels.....	Jan. 17-Apr. 3.....	9	4	
Belgium:				
Vilvorde.....	Dec. 1-8.....	1	1	
Brazil:				
Bahia.....	Nov. 8-Dec. 28.....	3	1	
Do.....	Dec. 27-Jan. 30.....	4	2	
Santos.....	Dec. 8-21.....		2	
Sao Paulo.....	Reported Mar. 25.....	4	1	
British East Africa:				
Kenya—				
Kisumu.....	Nov. 22-Dec. 5.....	1	2	
Do.....	Jan. 31-Mar. 20.....	15	3	
Uganda Protectorate.....	Sept. 1-Dec. 31.....	468	426	
Do.....	Jan. 1-Feb. 28.....	159	143	
Canary Islands:				
La Laguna.....	Dec. 24.....	3	2	
Las Palmas.....	.....do.....	1		
Do.....	Jan. 7.....	1	1	
Santa Cruz de Tenerife.....	Dec. 18-27.....	3		
Do.....	Dec. 25-Feb. 1.....	3		

# **CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued**

**Reports Received from December 26, 1925, to June 4, 1926—Continued**

## **PLAGUE—Continued**

Place	Date	Cases	Deaths	Remarks
Celebes:				
Makassar	Dec. 29-Feb. 2	12	12	Netherlands East Indies.
Ceylon:				
Colombo	Nov. 15-Dec. 5	3	3	1 plague rodent.
Do	Dec. 27-Jan. 16	2	2	
Do	Jan. 24-Mar. 6	5	5	Feb. 14-20, 1926: 2 plague rodents.
China:				
Nanking	Nov. 15-Apr. 24			Prevalent.
Ecuador:				
Ambato	Mar. 31		5	
Eloy Alfaro	Jan. 1-15	1		
Guayaquil	Nov. 1-Dec. 31	31	12	Rats taken, Nov. 1-Dec. 31, 1925, 49,370; rats found infected, 281.
Do	Jan. 1-Apr. 15	63	28	Rats taken, Jan. 1-Mar. 31, 1926, 73,499; rats found infected, 592.
Latacunga	Apr. 12			Present.
Rocreo (country estate)	Jan. 1-15	1		
Egypt:				
Alexandria	Mar. 10-Apr. 16	3		Jan. 1-Dec. 9, 1925: Cases, 138.
Beni Suef	Nov. 18	1	1	Jan. 1-Apr. 8, 1926: Cases, 10.
Fayoum Province	Dec. 3-9	1	1	
Gharbia Province	Mar. 9-30	5	3	
Mina Province	Mar. 4	1	1	
Suez	Mar. 27-Apr. 19	4	1	
Greece:				
Athens	Nov. 1-30	18	4	Including Piræus.
Do	Jan. 1-Mar. 31	25	4	
Herakleion	Feb. 4	1		On island of Crete.
Patras	Nov. 13-Dec. 12	4	1	
Hawaii Territory:				
Hawaii—	Feb. 2			1 plague-infected rodent found near Hamakua Mill Co.
Honokaa	Mar. 16	2		1 death suspected plague.
Kakuhalea	Mar. 19	1	1	
Paaulo				Jan. 29, 1926: Plague-infected rat found in vicinity.
India:				
Bombay	Dec. 6-12	1	12	Oct. 18, 1925, Jan. 2, 1926: Cases, 15,135; deaths, 10677. Jan. 9-Mar. 13, 1926: Cases 53,563; deaths, 41,553. Mar. 21-Apr. 3, 1926: Cases, 21,012; deaths, 16,627.
Do	Jan. 3-Apr. 10	7		
Calcutta	Dec. 6-12		1	
Karachi	Nov. 1-Dec. 19	4	3	
Do	Feb. 21-Apr. 24	22	10	
Madras Presidency	Oct. 25-Nov. 7	75	41	
Do	Nov. 15-21	35	22	
Do	Dec. 20-26	108	64	
Do	Jan. 3-Mar. 20	1,229	773	
Do	Mar. 27-Apr. 3	38	22	
Do	Apr. 11-17	25	18	
Rangoon	Oct. 25-Dec. 26	23	15	
Do	Dec. 27-Apr. 17	124	113	
Indo-China:				
Province—				September-December, 1925: Cases, 29; deaths, 20.
Cambodia	Sept. 1-Nov. 30	13	13	
Cochin China	Sept. 1-Dec. 31	15	13	
Iraq:				
Bagdad	Dec. 13-Jan. 2	7	3	
Do	Jan. 10-Apr. 17	111	61	
Java:				
Batavia	Oct. 21-Nov. 6	94	80	Province.
Do	Nov. 14-Jan. 1	315	297	
Do	Jan. 2-Mar. 12	433	408	
Do	Mar. 19-Apr. 2	19	19	
Cheribon	Sept. 27-Oct. 17		166	
Do	Nov. 15-Dec. 26		195	
Do	Jan. 3-Mar. 6		191	
Djokjakarta	Oct. 20-Nov. 9			Epidemic in 1 locality.
Kediri	Dec. 7			Do.
Koeniginan	Dec. 27-Jan. 10		114	
Do	Feb. 7-Mar. 6		103	
Pekalongan	Sept. 27-Oct. 17		42	
Do	Nov. 8-Dec. 26		252	
Do	Feb. 14-Mar. 6		123	



# **CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued**

**Reports Received from December 26, 1925, to June 4, 1926—Continued**

## **PLAGUE—Continued**

Place	Date	Cases	Deaths	Remarks
<b>Java—Continued.</b>				
Probolinggo.....	Feb. 12.....			Epidemic. Port.
Rembang.....	Oct. 20.....			Do.
Surabaya.....	Oct. 11-Dec. 26.....	50	59	
Do.....	Dec. 27-Mar. 27.....	45	45	
Tegal.....	Sept. 27-Oct. 17.....	6	6	
Do.....	Nov. 8-Dec. 26.....	31	31	
Do.....	Feb. 21-Mar. 6.....		11	
<b>Madagascar</b>				
Province.....				Nov 1-December 31, 1925: Cases, 632, deaths, 593. Jan. 1-31, 1926: Cases, 611; deaths, 565.
Ambositra.....	Dec. 16-31.....	9	7	Mar. 1-15, 1926: Cases, 111; deaths, 79.
Do.....	Jan. 1-15.....	2	2	
Fort Dauphin.....	Sept. 16-30.....	6	3	
Do.....	Jan. 16-Mar. 15.....	4	4	
Itasy.....	Sept. 16-Oct. 30.....	20	20	
Do.....	Nov. 16-Dec. 31.....	34	34	
Do.....	Jan. 1-15.....	29	29	
Do.....	Feb. 1-15.....	29	29	
Moramanga.....	Sept. 16-Dec. 31.....	49	48	
Do.....	Jan. 1-Mar. 15.....	51	47	
Tananarive.....				Sept. 16-Nov. 30, 1925: Cases, 368; deaths, 341. Dec. 16-31, 1925: Cases, 152; deaths, 143.
Town—				Jan. 1-Mar. 15, 1926: Cases, 583; deaths, 486.
Tamatave (Port).....	Sept. 16-Nov. 30.....	42	11	
Do.....	Feb. 1-Mar. 15.....	5	3	
Tananarive.....	Sept. 16-30.....	2	2	
Do.....	Nov. 1-30.....	11	11	
Do.....	Jan. 1-Mar. 15.....	40	40	
<b>Mauritius Island.</b>				
Moca.....	Sept. 20-Dec. 26.....	21	18	
Pamplemousses.....	Dec. 1-31.....	2	2	
Port Louis.....	Oct. 1-Nov. 30.....	3	2	
Rivière du Rempart.....	Oct. 1-Dec. 31.....	13	9	
Nigeria.....	October.....	2		
Do.....	Aug. 1-Dec. 31.....	594	447	
Do.....	Jan. 1-31.....	24	21	
<b>Persia:</b>				
Teheran.....	Oct. 21-Nov. 21.....		12	
<b>Peru</b>				
Barranca and Supo.....	Mar. 1-31.....	4	6	January-March, 1926: Cases, 383; deaths, 148.
Cañete.....	do.....	1		
Caras.....	do.....			Present.
Casas.....	do.....	15	5	
Chiclayo.....	do.....		4	
Chimbote.....	do.....	16	8	Country estates.
Chincha.....	do.....	14	5	
Contumaza.....	do.....	12		
Cutorvo.....	do.....			Present.
Huacho.....	Jan. 26.....	15		Port 60 miles north of Callao.
Lacramaren.....	Mar. 1-31.....	6		
Lima.....	Jan. 1-31.....	20		In hospital. Some cases in Province.
Mollendo.....	do.....			12 or 15 cases reported unofficially.
Do.....	Mar. 1-31.....			Present.
Moro.....	do.....			
Otuzco.....	do.....	1		
Pacasmayo.....	do.....	2	1	
Salaverry.....	do.....	5	2	
San Pablo.....	do.....			Do
Trujillo.....	do.....	15	5	
<b>Russia</b>				
Do.....	May-June.....	67		
Do.....	July-November.....	217		
<b>Senegal</b>				
Do.....	September-October.....	45	25	
<b>Siam</b>				
Do.....	Aug. 23-Dec. 26.....	65	53	
Do.....	Dec. 27-Jan. 30.....	16	9	
Bangkok.....	Nov. 15-28.....	3	3	
Do.....	Jan. 3-30.....	38	33	
Do.....	Feb. 7-20.....	11	5	
Do.....	Feb. 28-Apr. 10.....	5	2	
<b>Straits Settlements:</b>				
Singapore.....	Nov. 1-Dec. 5.....	8	8	
Do.....	Jan. 3-Mar. 20.....	3	3	
<b>Syria:</b>				
Beirut.....	Nov. 11-20.....	1		
Do.....	Jan. 21-31.....	1		

# **CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued**

**Reports Received from December 26, 1925, to June 4, 1926—Continued**

## **PLAGUE—Continued**

Place	Date	Cases	Deaths	Remarks
Union of South Africa.....				Mar. 7-13, 1926: Cases, 3; European, 2. Mar. 21-27, 1926: Cases, 12; deaths, 4. Apr. 4-10, 1926: Cases, 3; deaths, 1. Native.
Cape Province.....	Apr. 4-10.....	1	1	Native.
Kimberley district.....	Dec. 13-19.....	1		European.
Middleburg district.....	Dec. 6-12.....	1		Native. On farm.
Steynsburg district.....	Nov. 15-21.....	1		
Winburg district.....	Feb. 21-27.....	1		
Orange Free State.....				Mar. 14-Apr. 10, 1926: Cases, 11; deaths, 5.
Boshof district.....	Nov. 29-Dec. 5.....	1	1	In native.
Bothaville district.....	Dec. 6-12.....	1	1	Native. On farm.
Bradford district.....	Mar. 28-Apr. 3.....	1	1	
Grandfort district.....	Mar. 21-27.....	3	1	European, in same family, pneumonic.
Hoopstad district.....	Mar. 7-Apr. 3.....	8	4	
Kroonstad district.....	Mar. 14-20.....	1		Native. On farm.
Winburg district.....	Mar. 14-Apr. 3.....	11	5	
On vessel:				
Steamship Cid.....				Jan. 29, 1926. Plague rat. At Buenaventura, Colombia. Rat was killed while jumping ashore from vessel.

## **SMALLPOX**

Algeria:				
Algiers.....	Nov. 21-Dec. 31.....	177		
Do.....	Jan. 1-10.....	64		
Do.....	Jan. 21-Apr. 20.....	78		
Arabia:				
Aden.....	Nov. 29-Dec. 5.....	1		Imported.
Do.....	Jan. 10-Mar. 6.....	10	1	
Argentina:				
Rosario.....	October.....		1	
Australia:				
Queensland--				
Brisbane.....	Dec. 9-15.....	1		
Azores:				
Fayal Island.....	Feb. 2-Apr. 11.....			Present. Reported as alastrim.
Bahamas.....	Feb. 23.....			In Nassau district. Stated to have been imported.
Brazil:				
Mannao.....	Dec. 1-31.....		12	
Do.....	Jan. 31-Feb. 20.....		6	
Para.....	Jan. 10-May 3.....	35	10	
Rio de Janeiro.....	Nov. 1-28.....	134	72	
Do.....	Dec. 6-26.....	65	25	
Do.....	Dec. 27-Apr. 3.....	279	224	June 27, 1925-Mar. 20, 1926: Cases, 1,089; deaths, 580.
British East Africa:				
Kenya--				
Mombasa.....	Nov. 15-Dec. 19.....	14	6	
Do.....	Dec. 27-Mar. 20.....	2		
Tanganyika territory--				
Dar-es-Salaam.....	Feb. 21-27.....	1		
Uganda Protectorate.....	Sept. 1-Oct. 31.....	8	4	
Do.....	Feb. 1-28.....	1		
British South Africa:				
Northern Rhodesia.....	Jan. 5-11.....	2		
Southern Rhodesia.....	Nov. 13-Dec. 23.....	3		
Canada.....				Sept. 13-Jan. 2: In 7 Provinces, 186 cases. Jan. 3-Feb. 27, 1926: Cases, 277.
Alberta.....				Jan. 3-May 1, 1926: Cases, 70.
Calgary.....	Dec. 13-19.....	1		From Drumheller, vicinity of Calgary.
British Columbia--				
Vancouver.....	Jan. 4-Mar. 27.....	2		
Victoria.....	Mar. 21-27.....	2		
Manitoba.....				Jan. 3-May 8, 1926: Cases, 78.
Winnipeg.....	Dec. 13-19.....	2		
Do.....	Jan. 3-Apr. 10.....	16	1	
New Brunswick--				
Northumberland.....	Dec. 6-13.....	1		

# **CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued**

**Reports Received from December 26, 1925, to June 4, 1926—Continued**

## **SMALLPOX—Continued**

Place	Date	Cases	Deaths	Remarks
<b>Canada—Continued.</b>				
Ontario.....	Jan. 1-Feb. 1.....	16	—	Dec. 1-31, 1925: Cases, 32. Jan. 3-May 8, 1926: Cases, 269.
Admaston.....	Feb. 1-28.....	6	—	Township.
Alice and Fraser.....	do.....	7	—	Do.
King.....	do.....	6	—	Do.
Wilmot.....	do.....	4	—	Do.
Belleville.....	do.....	1	—	
Kingston.....	Mar. 8-14.....	26	—	
Kitchener.....	do.....	7	—	
North Bay.....	Feb. 14-Mar. 14.....	2	—	
Ottawa.....	Dec. 6-12.....	2	—	
Do.....	Jan. 3-Feb. 6.....	2	—	
Sarnia.....	Mar. 14-May 8.....	9	—	
Toronto.....	Dec. 27-Jan. 2.....	1	—	
Do.....	Jan. 3-May 15.....	31	—	
Trenton.....	Jan. 3-Apr. 17.....	15	—	
Saskatchewan.....				Jan. 3-May 8, 1926: Cases, 131.
Moose Jaw.....	Jan. 3-Mar. 20.....	2	—	
Regina.....	Jan. 24-May 1.....	5	—	
Saskatoon.....	Feb. 14-20.....	1	—	
Ceylon:				
Colombo.....	Dec. 6-12.....	1	—	Port case.
Do.....	Jan. 3-Feb. 6.....	5	—	
Chile:				
Punta Arenas.....	Dec. 13-26.....	—	8	
Do.....	Dec. 27-Jan. 2.....	—	4	
China:				
Amoy.....	Oct. 25-Dec. 19.....	—	1	
Do.....	Jan. 10-Apr. 17.....	—	35	
Antung.....	Dec. 7-20.....	2	—	
Do.....	Mar. 21-Apr. 24.....	2	—	
Changsha.....	Feb. 21-27.....	—	—	Present.
Chungking.....	Nov. 15-17.....	—	—	Do.
Do.....	Feb. 28-Apr. 3.....	—	—	Do.
Foochow.....	Nov. 1-Apr. 17.....	—	—	Do.
Hankow.....	Nov. 14-Dec. 26.....	4	—	
Do.....	Jan. 10-Mar. 6.....	3	—	
Hongkong.....	Nov. 22-Dec. 26.....	4	—	
Do.....	Jan. 3-Apr. 3.....	17	5	
Manchuria—				
An-shan.....	Dec. 6-12.....	1	—	
Do.....	Jan. 10-Apr. 24.....	10	—	
Changchun.....	do.....	23	—	
Dairen.....	Oct. 19-Dec. 27.....	73	15	
Do.....	Dec. 28-Apr. 4.....	87	28	
Fushun.....	Jan. 17-Apr. 24.....	5	—	
Harbin.....	Jan. 1-Apr. 22.....	22	—	
Kai-yuan.....	Jan. 10-30.....	4	—	
Kungehuling.....	Jan. 31-Feb. 20.....	2	—	
Lio-yang.....	Jan. 17-Apr. 24.....	6	—	
Mukden.....	Oct. 24-Nov. 15.....	1	—	
Do.....	Jan. 24-Feb. 27.....	4	—	
Suping-kai.....	Mar. 14-Apr. 3.....	2	—	
Tieh-ling.....	Oct. 26-Nov. 15.....	2	—	
Do.....	Apr. 18-24.....	1	—	
Nanking.....	Nov. 21-Dec. 26.....	—	—	Do.
Do.....	Dec. 27-Apr. 24.....	—	—	Do.
Shanghai.....	Oct. 25-Jan. 2.....	37	36	
Do.....	Jan. 3-Apr. 17.....	58	140	Cases, foreign only.
Swatow.....	Nov. 22-Apr. 24.....	—	—	Prevalent.
Tientsin.....	Nov. 1-Dec. 19.....	2	—	
Do.....	Jan. 23-Feb. 27.....	2	—	
Chosen:				
Seishin.....	Jan. 1-Mar. 31.....	58	33	
Egypt:				
Alexandria.....	Dec. 3-31.....	5	2	
Do.....	Jan. 6-14.....	2	1	
Do.....	Jan. 29-Apr. 8.....	63	11	
Cairo.....	Dec. 25-31.....	14	—	
Do.....	Jan. 1-7.....	3	—	
Port Said.....	Feb. 26-Mar. 4.....	1	—	
Esthonia.....				November, 1925: Cases, 3.

# CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued

Reports Received from December 26, 1925, to June 4, 1926—Continued

## SMALLPOX—Continued

Place	Date	Cases	Deaths	Remarks
France.....				September-December, 1925: Cases, 253.
Do.....	Jan. 1-31.....	57		
Havre.....	Jan. 25-31.....		9	
Paris.....	Mar. 1-Apr. 30.....	11	2	
Gold Coast.....	September, December.....	58	5	
Do.....	Jan. 1-31.....	36	3	
Great Britain:				
England and Wales.....				Nov. 15-Dec. 26, 1925: Cases, 700; Dec. 27-May 1, 1926: Cases, 4,290.
Bradford.....	May 2-8.....	1		
Hull.....	Dec. 27-Jan. 23.....	29		
Do.....	Feb. 7-Mar. 27.....	9		
Leeds.....	Jan. 14-Feb. 6.....	4		
London.....	Jan. 31-Feb. 6.....		1	
Newcastle-on-Tyne.....	Nov. 29-Dec. 19.....	6		
Do.....	Dec. 27-May 2.....	11	1	
Nottingham.....	Nov. 22-Dec. 26.....	9		
Do.....	Dec. 27-Apr. 21.....	8		
Sheffield.....	Nov. 22-Dec. 12.....	7		
Do.....	Dec. 20-26.....	3		
Do.....	Dec. 27-Mar. 20.....	18		
Do.....	Apr. 25-May 8.....	3		
South Shields.....	Feb. 9.....			Reported present in severe form. Oct. 1-31, 1925: Cases, 16.
Greece.....				
Athens.....	Nov. 1-Dec. 31.....	18	1	
Do.....	Jan. 1-Mar. 31.....	87	6	
Kalamata.....	Mar. 1-7.....	1		From Patras.
Saloniki.....	Feb. 16-Mar. 15.....		2	
Gundeloupe (West Indies).....				Apr. 23-May 10, 1926: Present. Alastrim.
India.....				Oct. 18-Dec. 26, 1925: Cases, 19,172; deaths, 4,440. Dec. 27, 1925-Apr. 3, 1926: Cases, 91,853; deaths, 23,883.
Bombay.....	Nov. 8-Dec. 26.....	26	20	
Do.....	Dec. 27-Apr. 10.....	328	171	
Calcutta.....	Nov. 8-Dec. 26.....	48	25	
Do.....	Dec. 27-Apr. 3.....	680	397	
Karachi.....	Nov. 1-21.....	23		
Do.....	Nov. 20-Dec. 5.....	4	2	
Do.....	Dec. 13-19.....	3		
Do.....	Dec. 20-Apr. 24.....	127	40	
Madras.....	Nov. 15-Dec. 26.....	17	5	
Do.....	Dec. 27-Apr. 24.....	145	26	
Rangoon.....	Oct. 25-Dec. 26.....	7	1	
Do.....	Dec. 27-Jan. 18.....	13	1	
Do.....	Jan. 24-Mar. 6.....	70	17	
Do.....	Mar. 21-Apr. 17.....	29	9	
Indo-China.....				September- November, 1925: Cases, 346; deaths, 85.
Province—				
Annam.....	Sept. 1-Dec. 31.....	232	44	
Cambodia.....	do.....	84	34	
Cochin China.....	do.....	106	51	
Saigon.....	Dec. 21-27.....	2	1	
Do.....	Jan. 1-Mar. 28.....	14	2	
Tonkin.....	Sept. 1-Dec. 31.....	153	2	Including 100 square kilometers of surrounding country.
Iraq:				
Bagdad.....	Nov. 1-Dec. 26.....	19	15	Sept. 6-Oct. 17, 1925: Cases, 81; deaths, 40.
Do.....	Dec. 27-Apr. 17.....	23	13	
Basra.....	do.....	67	51	
Italy.....				Aug. 2, 1925-Jan. 2, 1926: Cases, 52. Jan. 3-Feb. 20, 1926: Cases, 26.
Catania.....	Feb. 15-28.....	7	1	
Do.....	Apr. 27-May 2.....	4		
Genoa.....	Jan. 21-Feb. 10.....	4		
Rome.....	Oct. 12-25.....	1		
Do.....	Feb. 22-28.....	1		Occurring in consular district.
Jamaica.....				Nov. 20-Dec. 26, 1925: Cases, 95. Dec. 27, 1925-Apr. 24, 1926: Cases, 509. Reported as alastrim.
Kingston.....	Nov. 29-Dec. 28.....	43		Reported as alastrim.
Do.....	Dec. 27-Jan. 30.....	48		Do.
Do.....	Feb. 28-Apr. 24.....	36		Do.

# CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued

Reports Received from December 26, 1925, to June 4, 1926—Continued

## SMALLPOX—Continued

Place	Date	Cases	Deaths	Remarks
Japan:				
Kobe	Mar. 14-Apr. 17	3		
Nagasaki	Feb. 15-25	2		
Taiwan	Nov. 11-Dec. 10	3		
Do	Mar. 21-31	3		
Yokohama	Dec. 14-20	1		
Do	Feb. 23-Apr. 17	71	11	
Java:				
Batavia	Oct. 24-Dec. 25	8		
Do	Feb. 20-Mar. 19	6		
Buitenzorg	Nov. 29-Dec. 5	1		
Cheribon	Nov. 8-Dec. 12	2		
Do	Jan. 31-Feb. 6		1	
Kraksaan	Oct. 11-17	11		
Malang	Oct. 11-Dec. 26	2		
Do	Dec. 27-Jan. 16	3	2	
North Bantam	Oct. 4-17	4		
Pekalongan	Oct. 25-31	1		
Pontianak	Jan. 31-Feb. 6		1	
Probolinggo	Oct. 11-17	1		
Serang	Feb. 14-27	5		
South Bantam	Feb. 23-Mar. 27	1		
Surabaya	Oct. 11-Dec. 26	633	104	
Do	Dec. 27-Mar. 13	141	43	
Tegal	Oct. 4-10	9	1	
Latvia				December, 1925: Cases, 3.
Malta	Nov. 1-Dec. 21	21	3	
Do	Jan. 1-Feb. 28	20		
Martinique	May 10			Prevalent.
Mexico				July-September, 1925: Deaths, 1,157.
Aguascalientes	Dec. 13-Jan. 2	4	3	
Do	Jan. 3-30		7	
Do	Feb. 14-May 8		4	
Chihuahua	May 9-17	7		
do			1	
Ciudad Juárez			1	
Durango	Dec. 1-31		1	
Do	Jan. 1-31		2	
Guadalajara	Dec. 27-May 17		26	
Mexico City	Nov. 23-Dec. 5	1		Including municipalities in Federal District.
Do	Jan. 3-May 1	17		Do.
Saltillo	Apr. 4-10	1		
San Luis Potosi	Jan. 17-Mar. 20		53	
Do	Mar. 28-May 15	15	33	
Tampico	Dec. 21-Jan. 2	1	1	
Do	Jan. 2-Mar. 10	8		
Torreón	Nov. 1-Dec. 31		51	
Do	Jan. 1-Apr. 30		80	
Vera Cruz	Mar. 23-Apr. 4	5	1	
Netherlands:				
The Hague	Jan. 30-Mar. 6	2	1	
Nigeria				Aug. 1-Dec. 31, 1925: Cases, 389; deaths, 6.
Do	Jan. 1-31	135	1	
Palestine:				
Hebron	Jan. 26-Feb. 1	2		
Tiberias	Feb. 9-15	1		
Persia:				
Teheran	July 23-Dec. 22		775	
Do	Dec. 23-Feb. 19		99	
Peru:				
Arequipa	Oct. 1-Dec. 31		2	
Poland				Nov. 1-28, 1925: Cases, 9. Jan. 1-16, 1926: Cases, 4.
Portugal				Mar. 1-23, 1926: Deaths, 6.
Lisbon	Oct. 4-31	124		
Do	Nov. 16-Dec. 27		60	
Do	Nov. 14-Dec. 25	187		
Do	Dec. 27-Apr. 25	126	32	
Oporto	Nov. 22-Dec. 19	2	3	
Do	Dec. 27-Apr. 24	4	1	
Rumania	August-October	3		
Russia				May-June, 1925: Cases, 2,333.
Do	July-October	1,563		July 1-Dec. 31, 1925: Cases, 3,447.

# CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued

Reports Received from December 26, 1925, to June 4, 1926—Continued

## SMALLPOX—Continued

Place	Date	Cases	Deaths	Remarks
Senegal:				
Dakar	Apr. 19-25	1		
Siam:				
Bangkok	Dec. 20-25	3	1	July 12-Sept. 5, 1925: Cases, 21; deaths, 6.
Do.	Dec. 26-Mar. 6	81	37	
Do.	Mar. 14-Apr. 10	30	18	
Sierra Leone:				
Konno district	Dec. 16-31	5		
Spain:				
Madrid	Year 1925		18	
Do.	Jan. 1-31		1	
Malaga	Nov. 29-Dec. 5		2	
Do.	Dec. 27-Jan. 2		1	
Valencia	Dec. 20-26	1		
Do.	Dec. 27-Jan. 2	1		
Do.	Jan. 10-Feb. 6	9		
Do.	Feb. 14-May 8	15		
Straits Settlements:				
Penang	Mar. 28-Apr. 3		1	
Singapore	Dec. 20-26	1		
Do.	Jan. 10-Mar. 27	8	2	
Sumatra:				
Medan	Feb. 14-27	2		
Switzerland				
Lucerne	Oct. 1-Nov. 30	8		June 28-Nov. 21, 1925: Cases, 62; Dec. 27, 1925-Feb. 27, 1926: Cases, 48.
Do.	Jan. 1-31	5		
Zurich	Dec. 27-Jan. 2	1		
Syria:				
Damascus	Apr. 11-20	1		
Trinidad (West Indies):				
Port of Spain	Jan. 1-Apr. 3	12		
Tripolitania:				
Do.	July 1-Dec. 31	34		
Do.	Jan. 1-31	3		
Tunisia:				
Tunis	Nov. 21-30	2		
Do.	Dec. 11-31	10	1	
Do.	Jan. 1-Apr. 20	7		
Turkey:				
Constantinople	Mar. 9-23	2	3	
Union of South Africa:				
Cape Province	Jan. 17-23			Outbreaks.
Orange Free State—				
Kuruman district	Jan. 10-16			Do.
Ladybrand district	Dec. 27-Jan. 2			Do.
Transvaal—				
Belfast district	....do.			Do.
Germiston district	Jan. 2-9			Do.
Pretoria district	Dec. 6-12			Outbreaks. In native com- pounds.
On vessel	Feb. 21	2		Mexican steamer Montezuma, at Port of Ensenada, Mexico.

## TYPHUS FEVER

Algeria:				
Algiers	Nov. 1-Dec. 20	2		
Do.	Jan. 1-Apr. 10	13		
Argentina:				
Rosario	Oct. 13-Dec. 31	2		
Bulgaria	Sept. 1-Dec. 31	50	3	
Do.	Jan. 1-31	42		
Sofia	Dec. 28-31	1		
Do.	Jan. 8-14	2		
Canary Islands:				
Santa Cruz de Tenerife	Mar. 8-14	1		
Chile:				
Achao	Dec. 15-31	1		Dec. 15-31, 1925: Cases, 46. Jan. 1-15, 1926: Cases, 23.
Do.	Jan. 1-15	1		
Ancud	....do.	2		
Antofagasta	Apr. 11-17	1		
Bulnes	Dec. 15-31	1		
Chilian	....do.	24		
Concepcion	....do.	6		

# CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued

Reports Received from December 26, 1925, to June 4, 1926—Continued

## TYPHUS FEVER—Continued

Place	* Date	Cases	Deaths	Remarks
<b>Chile—Continued.</b>				
Linares.....	Decr 15-31.....	1	—	
Los Angeles.....	.....do.....	5	—	
Penco.....	.....do.....	2	—	
Salamanca.....	.....do.....	17	—	
San Carlos.....	.....do.....	1	—	
Talca.....	.....do.....	1	—	
Valparaiso.....	Nov. 29-Jan. 2.....	5	2	
Do.....	Jan. 3-Mar. 27.....	4	—	
<b>China:</b>				
Antung.....	Nov. 29-Dec. 27.....	5	1	
Do.....	Jan. 4-Apr. 11.....	15	—	
Hongkong.....	Dec. 27-Jan. 2.....	1	—	
Manchuria—				
Harbin.....	Dec. 17-Feb. 4.....	3	—	
Do.....	Apr. 2-8.....	1	—	
Shanghai.....	Mar. 14-20.....	1	—	
Czechoslovakia.....	October-December.....	146	1	
Do.....	Jan. 1-31.....	32	—	
<b>Egypt:</b>				
Alexandria.....	Jan. 8-Feb. 25.....	2	—	
Cairo.....	Nov. 5-Dec. 16.....	3	2	
Port Said.....	Nov. 19-25.....	1	—	
Do.....	Mar. 12-18.....	1	—	
Estonia.....	Jan. 1-31.....	6	—	
Finland.....				October, 1925: 1 case.
France.....	July-October.....	4	—	
Greece.....				December, 1925: Cases, 12.
Athens.....	Nov. 1-30.....	11	2	
Do.....	Jan. 1-Mar. 31.....	45	9	
Saloniki.....	Dec. 29-Jan. 4.....	1	—	
Do.....	Feb. 2-Apr. 19.....	3	—	
Hungary.....				November-December, 1925: Cases, 16. Jan. 1-31, 1926: Cases, 6.
<b>Ireland:</b>				
Cork County—				
Cork.....	Dec. 26-Jan. 1.....	2	—	
Do.....	Jan. 2-8.....	5	—	
Do.....	May 2-8.....	1	—	
Dumanway.....	Nov. 14.....	1	—	
Galway County.....	Oct. 17.....	1	—	
Kerry County—				
Listowel.....	Mar. 7-13.....	1	—	Rural district.
Wexford County—				
Gorey.....	.....do.....	1	—	Do.
Latvia.....	October-December.....	12	—	
Do.....	Feb. 1-25.....	18	—	
Riga.....	Oct. 1-31.....	2	—	
Lithuania.....				September-December, 1925 Cases, 26; deaths, 1. Jan. 1-31, 1926: Cases, 16; deaths, 1.
<b>Mexico</b>				
Agascalientes.....	Dec. 14-19.....	1	—	July-September, 1925: Deaths, 90.
Do.....	May 2-8.....	—	1	
Durango.....	Dec. 1-31.....	—	1	
Do.....	Jan. 1-31.....	—	1	
Guadalajara.....	Dec. 8-23.....	—	2	
Do.....	Dec. 29-Jan. 4.....	—	1	
Mexico City.....	Nov. 22-Dec. 26.....	50	—	
Do.....	Dec. 27-Mar. 20.....	89	—	Including municipalities in Federal District.
Do.....	Mar. 23-Apr. 10.....	11	—	Do.
Do.....	Apr. 25-May 1.....	10	—	Do.
San Luis Potosi.....	Feb. 6-13.....	—	1	
Tampico.....	Dec. 21-Jan. 10.....	1	1	
Torreón.....	November, 1925.....	—	1	
Vera Cruz.....	Feb. 12.....	—	1	
Morocco.....	August-December.....	93	—	
Do.....	Jan. 1-31.....	57	—	
Norway.....				November-December, 1925: Cases, 2.

# CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued

Reports Received from December 26, 1925, to June 4, 1926—Continued

## TYPHUS FEVER—Continued

Place	Date	Cases	Deaths	Remarks
Palestine:				
Ekron.....	Mar. 30-Apr. 5.....	1	1	
Gaza.....	Dec. 18.....	1	1	
Haifa.....	Mar. 16-Apr. 19.....	2	2	
Jaffa.....	Dec. 1-7.....	1	1	
Do.....	Feb. 29-Mar. 1.....	1	1	
Nazareth.....	Nov. 3-9.....	1	1	
Ramleh.....	Mar. 16-22.....	1	1	
Safed.....	Nov. 24-30.....	1	1	
Tel-Aviv.....	do.....	1	1	
Do.....	Mar. 9-15.....	1	1	
Tiberias.....	do.....	2	2	
Peru:				
Arequipa.....	October-December.....		3	
Do.....	Feb. 1-Mar. 31.....		2	
Poland.....	Oct. 11-Jan. 2.....	462	44	
Do.....	Jan. 3-Feb. 13.....	611	45	
Rumania.....				July 1-Dec. 31, 1925: Cases, 348; deaths, 41.
Constantza.....	Feb. 1-Mar. 10.....	2		May-June, 1925: Cases, 10,680.
Russia.....				July 1-Nov. 30, 1925: Cases, 7,980.
Do.....				
Tunisia:				
Tunis.....	Mar. 21-31.....	3		
Turkey:				
Constantinople.....	Jan. 24-30.....	3		
Do.....	Feb. 9-Mar. 31.....	6	4	
Union of South Africa.....				October, 1925: Cases, 88; deaths, 7 (colored). Cases, European, 7. December, 1925: Cases, 78; deaths, 9. Colored: Cases, 73; deaths, 9. January-February, 1926: Cases, 163; deaths, 28.
Cape Province.....	Oct. 1-31.....	63	5	Colored. Apr. 4-10, 1926: Outbreaks in Mount Currie and Tsolo district.
Do.....	Nov. 8-Dec. 31.....	47	8	
Do.....	Jan. 1-Apr. 2.....	127	20	
Grahamstown.....	Jan. 24-30.....	2	2	
Middleburg district.....	Dec. 6-12.....	1		European. On farm.
Natal.....	Oct. 1-Dec. 5.....	1		
Do.....	Jan. 1-Feb. 23.....	11	1	Colored.
Durban.....	Jan. 3-Apr. 17.....	10	1	
Port Shepstone.....	Apr. 4-10.....	1		
Orange Free State.....	Nov. 29-Dec. 5.....	23	1	
Do.....	Dec. 1-31.....	8	1	
Do.....	Jan. 1-Feb. 23.....	8	3	Do.
Bethulia district.....	Dec. 6-12.....			Outbreaks.
Bothaville district.....	do.....	1		Native. On farm.
Transvaal.....	Oct. 1-31.....	1	1	
Do.....	Dec. 1-31.....	18		
Do.....	Feb. 1-28.....	8	4	
Johannesburg district.....	Mar. 1-20.....	3		
Bloemhof district.....	Dec. 27-Jan. 2.....			Outbreak. On farm.
Yugoslavia.....				Jan. 1-Mar. 21, 1926: Cases, 105; deaths, 14.

## YELLOW FEVER

Gold Coast.....	Sept. 1-Dec. 31.....	4	3	
Nigeria.....	August-October.....	3	2	
Senegal.....	November, 1925.....	3	2	







TREASURY DEPARTMENT

# PUBLIC HEALTH REPORTS

ISSUED WEEKLY

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JUNE 18    -    -    -    1926

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## SPECIAL ARTICLES

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Observations on Endemic Typhus in Southern United States  
Destroying Engorged Anopheles as Malaria-Control Measure



WASHINGTON  
GOVERNMENT PRINTING OFFICE  
1926

# UNITED STATES PUBLIC HEALTH SERVICE

HUGH S. CUMMING, *Surgeon General*

## DIVISION OF SANITARY REPORTS AND STATISTICS

ASST. SURG. GEN. B. J. LLOYD, *Chief of Division*

THE PUBLIC HEALTH REPORTS are issued weekly by the United States Public Health Service through its Division of Sanitary Reports and Statistics, pursuant to acts of Congress approved February 15, 1893, and August 14, 1912.

They contain: (1) Current information of the prevalence and geographic distribution of preventable diseases in the United States in so far as data are obtainable, and of cholera, plague, smallpox, typhus fever, yellow fever, and other communicable diseases throughout the world. (2) Articles relating to the cause, prevention, or control of disease. (3) Other pertinent information regarding sanitation and the conservation of the public health.

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## CLINICAL OBSERVATIONS ON ENDEMIC TYPHUS (BRILL'S DISEASE) IN SOUTHERN UNITED STATES

By KENNETH F. MAXCY, Passed Assistant Surgeon, United States Public Health Service

During the past three years, 209 cases of endemic typhus have been diagnosed and reported in Alabama and Georgia. Many more doubtless occurred, but were undiagnosed or unreported. In 114 cases, more or less complete clinical notes have been obtained—in 41 by personal visits and in the remainder through the cooperation of the attending physicians,<sup>1</sup> who have kindly consented to fill out case history forms. From this material has been derived the clinical description of the disease which is herewith presented.

### CLINICAL COURSE

Briefly stated, endemic typhus is a fever lasting two weeks and characterized by a maculo-papular skin eruption and nervous symptoms.

The following is a brief account of an extremely mild case. Such a case is likely to escape recognition unless the attending physician is familiar with the clinical syndrome.

*Case M 81.*—Patient of Dr. C. F. Pearson, Montgomery, Ala.; white, male, age 24, salesman of fruit and produce. On the night of October 19, while returning from an automobile trip, he felt "chilly" and sick. The following day he was "dizzy" and he thinks he had some fever, but was able to go to work. He "dragged himself about" until October 25, when he felt so weak that he remained in bed. He was somewhat nauseated and vomited once or twice. His throat felt sore and he had a slight, hacking cough. He had pains in the back of his head and neck and "ached all over." He was nervous and depressed. No skin eruption was noted by his physician, by himself, or by his wife, who attended him. On the ninth day of his illness a blood examination was made, and the pathologist, on his own initiative, had a Weil-Felix test performed. The serum agglutinated X 19 in a dilution of 1: 640.\* The white blood cell count was 14,000. When examined on the morning of the tenth day he had a few scattered macules on his body which could with difficulty be distinguished from acne spots and natural blemishes on a dark skin. On the afternoon of the same day, due to rise in body temperature, the eruption came out more definitely and was plainly visible, but was scant and of limited distribution. It had disappeared entirely two days later. His fever at its highest did not exceed 103.5° F.; it declined by

<sup>1</sup> The author desires to express his great indebtedness to Dr. I. C. Havens and Dr. C. N. Leach, of Montgomery, Ala., and to Dr. Victor C. Bassett and Dr. J. R. Bean, of Savannah, Ga., for assistance in collecting these notes, and to the many members of the medical profession of Alabama and Georgia for their contribution to this study.

remissions during the second week and returned to normal on the fourteenth day. On the evening of the thirteenth day he experienced a sudden relief from his distressing subjective sensations. Convalescence was rapid and uneventful.

The following case, which also occurred in Montgomery, illustrates a severe type of infection. It resembles more nearly the description of Old-World epidemic typhus:

*Case M 79.*—Patient of Dr. Bernard Mount, Montgomery, Ala.; white, male, age 22, bank clerk. Became ill with chilly sensations and general aching on September 30, and was admitted to the Memorial Hospital on October 3. His fever curve (see accompanying graph) showed a steplike rise as he became increasingly ill. He complained bitterly of headache, muscular soreness, and was extremely uncomfortable. He developed a slight, hacking cough. His conjunctivae became severely congested; photophobia was marked. On the fifth day the characteristic maculo-papular eruption appeared (see illustration), and was soon distributed over the entire body, except the face, palms of the hands, and soles of the feet, where only a few scattered macules were visible. At first drowsy, irritable, and apathetic, his mental condition became progressively worse. Toward the end of the second week he lay in a stuporous condition from which he could be aroused with difficulty. On the seventh and eighth days his sputum showed an admixture of fresh red blood; no signs of pulmonary consolidation could be detected. The fever reached its height on the seventh day, was more and more remittent in character, declining abruptly to normal about the fourteenth day. With the disappearance of the fever, the patient remained extremely weak, prostrated, and depressed for a week longer before convalescence was definitely established. Recovery was slow, but there were no complications except slight deafness which cleared up in a few days. White blood cell count on the fourth day was 12,000; Weil-Felix reaction, negative on the fifth day, became positive with a titre of 1:1280 on the twelfth day. One of two guinea pigs inoculated on the fourth day, showed a typical typhus response, and the strain has been since used for experimental purposes.

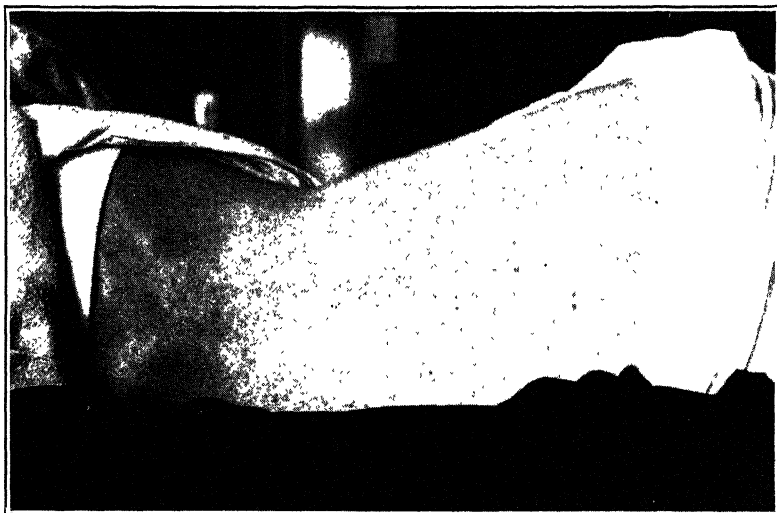
Every gradation in the clinical picture between these two illustrative cases has been seen. This variation can best be brought out by a detailed discussion of the symptomatology.

#### SYMPTOMATOLOGY

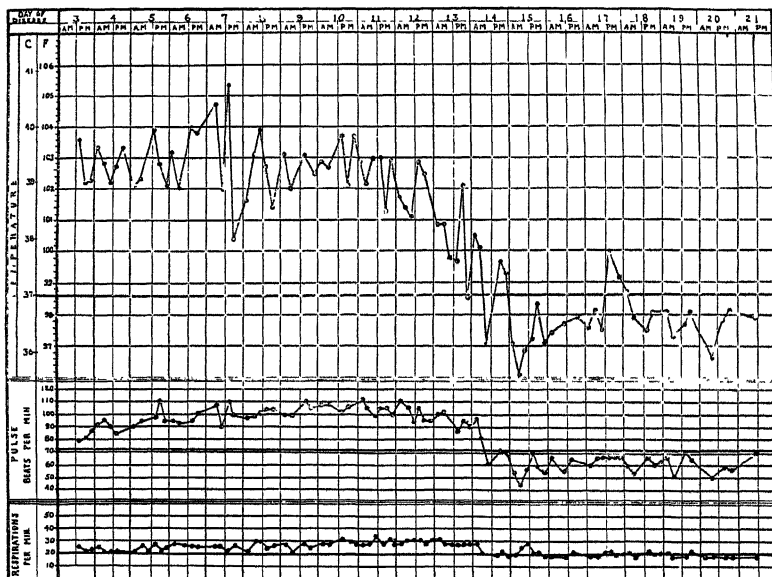
*Onset.*—In a majority of cases (65 per cent) the onset was abrupt, with chills, fever, malaise, headache, and prostration, which brought the patient rapidly to his bed. He was usually sufficiently ill to call a physician within the first two or three days. In a minority of cases the onset was preceded by an indefinite period—one to twelve days or more—during which time the patient had not felt well (prodromata).

*Fever.*—The temperature rose with steplike progression with remissions, resulting in frank chills or chilly sensations. It reached maximum usually between the fifth and eighth days. Wide daily variations throughout the course were usually recorded. During the second week the remissions approached more and more closely to normal, and the daily rise became less marked. About the fourteenth day the rise failed to occur. The patient experienced rather sudden relief from distressing sensations. The termination was commonly by lysis,





The maculo-papular skin eruption of endemic typhus fever on the eighth day of the disease. Case M 79, Montgomery, Ala.



Fever chart of case M 79, Montgomery, Ala.



though in some instances by a rapid lysis as illustrated in the accompanying fever chart.

One of the most striking features of the disease was its uniform duration of about two weeks. An analysis of 94 cases showed that 36 per cent terminated between the thirteenth and fifteenth days, and 86 per cent between the twelfth and sixteenth days. Four of the 94 cases reached normal about the tenth day (abortive cases), and four complicated cases remained ill 21 days or more.

*Eruption.*—In 85 cases a definite observation was recorded upon the time when the eruption was first noted. The most frequent time of appearance was about the fifth day. Occasionally spots were detected as early as the second day. In over 90 per cent of instances it appeared before the eighth day. In the few remaining cases in which it was noted later, there was question whether the eruption had really appeared earlier but had not been noticed, or whether prodromal symptoms had been included in calculating the date of onset.

The evolution of the eruption was rapid. At first a few spots were seen here and there, particularly on the abdomen or on the flexor surface of the forearms or about the shoulder anteriorly. Within 24 hours the distribution became general, except in those mild cases in which it remained more or less limited. The face, palms of the hands, and soles of the feet were usually spared; though in the more severe cases a few macules, rarely many, appeared in these locations. Some of the spots were slightly elevated. (In a negro who had the disease I was able to see and feel the elevations before I could make out the definite discoloration.) As the profuseness of the eruption increased, the color changed from a dull red to a darker hue with a purple tinge. At this stage if the skin was blanched locally many of the spots disappeared, but some at least left behind a brownish stain. Sometimes the small spot with a dark center predominated, giving the skin a "flea-bitten" appearance; in others only macules were seen. The eruption commonly developed no farther than this, lasting from 48 to 72 hours and disappearing. In the more severe cases (see accompanying illustration) it became quite profuse and many of the spots became definitely petechial in character, reaching maximum intensity in four to six days. As it began to subside, the erythematous spots disappeared first, leaving those which were more definitely hemorrhagic in character. In a majority of instances the skin was clear by the time convalescence was established; though in a few, evidences of the eruption remained for another week or more, being evident particularly after a warm bath.

The chief characteristic of the efflorescence was its *irregularity*; the spots were irregular as regards size, coloration, elevation, outline, and distribution.

In six of the 114 cases the eruption was either not present at all or so fleeting and faint as to escape the notice of the patient, his attendants, and the physician.

*Respiratory system.*—There was usually some evidence of a mild inflammation of the respiratory tract. More than 90 per cent developed a characteristic short, "hacking" cough. It seldom became sufficiently marked to distress the patient; indeed, it was likely to be unnoticed until attention was directed toward it. In one instance a bloody sputum was brought up on the seventh and eighth days of the disease without detectable pulmonary consolidation. Only two cases in the entire series were complicated by bronchopneumonia.

*Cardiovascular-renal.*—The distinctive pathology of typhus is based upon acute lesions of the blood vessels, with thrombosis and perivascular accumulations of cells derived from the adventitia and the blood. This is the type of lesion which is responsible for the skin eruption which has been described. Thrombosis of a femoral vein occurred as a complication in one case in this series. Three of the deaths occurred suddenly in young men who did not appear to be particularly ill. Post mortem examination was not obtained, but the nature of the death suggested either a severely damaged myocardium with acute dilatation or the sudden liberation of a thrombus. Albumin and casts are sometimes found in the urine, but not more so than would be expected with any acute infectious disease.

*Visceral.*—During the onset of the disease there was nearly always some nausea; the patient usually vomited once or twice. In a few cases this nausea persisted and was rather distressing, but in a majority it passed off in a few days and was succeeded by an aversion for food which lasted until convalescence was established. The tongue was heavily coated, with red edges. The breath was offensive.

As a rule, the bowels were constipated, due probably to the limited food intake. In contradistinction to typhoid, the abdomen was flat and scaphoid. In one or two instances severe pain was referred to the abdominal region, suggesting an acute appendix or a cholecystitis.

Localized tenderness was absent, however, except in the region of the spleen, which became palpably enlarged only in a small proportion of cases.

*Nervous.*—The disease was nearly always ushered in with severe headache. This was so severe at times as to suggest the necessity for lumbar puncture. It was usually referred to the frontal region. Pain in the back of the neck was almost as frequent. Acute pain was often localized in some particular area—the lower back, the abdomen, the calves of the legs, etc. Hyperesthesia was not noted.

Most patients complained of "aching all over," referring to the muscles rather than the joints.

*Mental.*—In only 12 out of 65 cases in which note was made was the mental condition recorded as unchanged. Of the remaining 53, in 12 the patient was dull or apathetic; in 12 described as "nervous"; in 10 exhibited a combination of dullness with nervousness and irritability; in 4, nervousness with delirium; in 13, dullness with nervousness and delirium; in 2, dullness with delirium.

Thus, there was some degree of delirium at some time during the course of the illness in about 29 per cent of the cases. It varied from "night terrors" to a complete disorientation and confusion, which in one instance lasted for a week after the temperature had returned to normal. The delirium for the most part was associated with high temperatures.

The "nervousness" which was recorded in 60 per cent of the cases was rather characteristic. The patient became irritable, impatient. Noises were extremely disturbing. He tossed about in bed, was unable to find a comfortable position, slept fitfully, had bad dreams by night. He was complaining and querulous. He was unreasonable in his demands upon the family and upon his physician.

Mental dullness was observed in about an equal number of instances. It ranged from a slight apathy, apparent only during the first few days, to a profound depression or stupor which lasted well into convalescence. The patient was commonly depressed and feared a fatal outcome.

*Convalescence.*—Although the illness lasted but two weeks, the patient was severely prostrated and in a weakened condition at its termination. It was usually another week before he could get out of bed, and a month or two before he could resume work. He was likely to be nervous and depressed for some time. In two instances there was some loss of coordination in the leg movements, which was regained slowly.

*Complications.*—Complications were notably absent. In the entire series of 114 cases there were only two instances of bronchopneumonia and one case of thrombosis of the femoral vein. In one case which terminated fatally, there was a suppurative parotitis.

*Fatality.*—During the past three years eight deaths have been attributed to this disease in Alabama and Georgia. It is impossible to give the case fatality rate accurately since the total number of cases which occurred in these two States during this period is unknown, but it was certainly not over 4 per cent and probably nearer 2 per cent. Apparently these patients succumbed on account of a damaged cardiovascular system or because they were bad risks for any infectious disease, rather than because of the severity of the typhus intoxication.

## LABORATORY FINDINGS

Omitting reference to laboratory procedures designed to exclude diseases considered in the differential diagnosis, the white blood cell count and the Weil-Felix reaction are of value in establishing and confirming the clinical diagnosis. The former is of value mainly in a negative sense, in that the absence of a marked leucocytosis on the one hand, or a marked leucopenia on the other, often gives the clinician a lead as to the disease with which he is dealing.

The differential and total count were generally within the normal range. In 46 cases<sup>2</sup> in which the total white count was recorded, the results were as follows:

White cells per cubic milli- meter	Number of cases
From—	
3,000 to 4,000.....	3
5,000 to 6,000.....	7
7,000 to 8,500.....	10
9,000 to 10,000.....	6
11,000 to 12,000.....	7
13,000 to 14,000.....	2
15,000 and over.....	1

The specificity of the Weil-Felix reaction<sup>3</sup> for Old World, or epidemic, typhus has become so firmly established that it requires no discussion here. Briefly it is an agglutination reaction similar to the Widal. During the later stages of the disease, the patient's serum, for reasons not clearly understood, develops an ability to agglutinate in high dilution the proteus bacillus X 19. The reaction is not present during the first week, as a rule, and therefore is of value in confirming, rather than in establishing, the diagnosis.

In 89 cases in which a blood specimen was obtained from the patient on the seventh day of the disease or later, 68 or 76, per cent, agglutinated the Weil-Felix organism—proteus X 19, in dilution of 1:100 or more. In eight of the remaining cases the reaction was classed as doubtful, since the agglutination did not occur in dilution greater than 1:80. Of the 13 negative reactions, five were specimens obtained on the seventh, and two on the eighth, day of the disease, too early to demonstrate a reaction late in development.

If a dilution of 1:80 be accepted as specific (and our experience so far<sup>4</sup> indicates this to be a safe criterion when the agglutination is performed by the macroscopic method), and if only those specimens which have been obtained after the eighth day of the disease are considered, then 83 of the 89, or 93 per cent, would have been classed as positive by the Weil-Felix reaction.

<sup>2</sup> I am indebted to Dr. A. Trummer, of Montgomery, Ala., for many of these counts.

<sup>3</sup> Bengtson, Ida: The Weil-Felix Reaction as a Laboratory Test in the Diagnosis of Typhus Fever. Pub. Health Rep., Oct. 31, 1919, vol. 34, pp. 2446-2450.

<sup>4</sup> Havens, L. C.: Report to be published.

## DISCUSSION

The clinical course of the disease as it was encountered in the southern United States differs somewhat from that usually described for the epidemic typhus of the Old World and Mexico. It corresponds to the account of "An Acute Infectious Disease of Unknown Origin, etc.," by the late Dr. Nathan Brill in New York City.<sup>5</sup> Realizing that the disease with which he was dealing resembled typhus fever, Brill rejected this diagnosis because of its relative mildness—the absence of severe toxemia, the rare occurrence of grave nervous symptoms, the very low fatality rate—and because of certain epidemiological considerations.

Dr. G. A. Friedman,<sup>6</sup> writing from an extensive experience with typhus in western Russia, asserted that these clinical differences were unimportant. In the Old World, where typhus is sporadic or endemic, the disease manifestations are relatively mild and the case fatality is low, corresponding in all essential respects to the cases described by Brill.

Anderson and Goldberger<sup>7</sup> were successful in infecting guinea pigs from one of Brill's cases, and in subsequent animal passages showed that the virus was identical with that of Mexican typhus in so far as the two strains afforded cross protection to the infected animals. It was then scientifically accepted that "Brill's disease" was mild typhus.

In similar manner, when these cases were encountered in Alabama<sup>8</sup> and Georgia, physicians were loath to believe that they were dealing with typhus fever, among other reasons because of the mildness of the clinical manifestations when compared with the textbook descriptions. It has since been demonstrated that the Weil-Felix reaction is positive in a high percentage of the foregoing cases and that some of the guinea pigs inoculated from a limited number of cases reacted characteristically.<sup>9</sup>

It must be granted, therefore, that this disease in Southern United States is indistinguishable clinically from mild typhus. So far as observed, the low mortality accompanying its endemic prevalence in this country appears to be a fixed characteristic; the wide variations in mortality observed in countries where typhus at times becomes epidemic have not been manifest. The laboratory evidence at present available testifies to the identity or very close relationship of the etiologic virus with that of Old World typhus.

<sup>5</sup> Brill, Nathan E.: Amer. Jour. Med. Sci., April, 1910, vol. cxvix, pp. 484-502.

<sup>6</sup> Friedman, G. A.: Brill's Symptom-Complex; Typhus Fever; Manchurian Typhus. Arch. Int. Med., 1911, vol. viii, pp. 427-439.

<sup>7</sup> Anderson, J. F. and Goldberger, Jos.: The Relation of So-Called Brill's Disease to Typhus Fever. Pub. Health Rep., Feb. 2, 1912, vol. 30, p. 149.

<sup>8</sup> Maxcy, K. F. and Havens, L. C.: A Series of Cases Giving a Positive Weil-Felix Reaction. Am. Jour. Trop. Med., Nov. 1923, vol. 3, pp. 495-507.

<sup>9</sup> Report to be published.

On the other hand, the epidemiology of the disease observed in Southern United States<sup>10</sup> presents certain differences from that of Old World typhus which suggest that the mode of transmission may not be the same—that there may be some mode other than direct transmission from man to man by means of the bite of a louse.

#### SUMMARY

A clinical description of endemic typhus (Brill's disease) based upon 114 cases observed in the southern United States has been presented.

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### DESTROYING ENGORGED ANOPHELES AS A MALARIA CONTROL MEASURE

By J. A. LePRINCE, Senior Sanitary Engineer, United States Public Health Service

The value and importance of applying emergency malaria-control measures has been stressed by Fricks (1), Gorgas (2), Howard (3), LePrince (4), Orenstein (5), Ross (6), and others, and again recently in the Report of the International Congress on Malaria at Rome, Italy.

The field workers of the United States Public Health Service have been studying the application of malaria-control measures since 1914, and in malarious localities they find the greatest prevalence among the farm-tenant classes, many of whom are relatively poor, and malaria is not infrequently a contributing cause to their poverty. If a control measure can be devised and applied that will not necessitate any investment of capital until such time as these tenants are better able physically to carry on their daily tasks, it will be in every way advantageous to them.

Although much publicity has been given to matters pertaining to malaria control, it is not uncommon for communities and even health workers to start malaria-control campaigns before studying the nature of the local problem. Not infrequently those who are assigned the task of supervising the field measures have had but little previous field experience, or may be unaware of special measures which were developed and applied years ago, which, if modified, might be very well suited to the conditions surrounding the new undertaking. As a result, methods that are less satisfactory, more expensive, unsuited to the problem, or doomed to failure may be adopted with unfortunate results. Such procedure has a tendency to give the neighboring public a fixed impression that all mosquito-control measures are expensive and of doubtful value.

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\* Report to be published.



Throughout the malarious districts of this and other countries are suburban sections of rapidly growing towns, farming settlements, industrial-plant villages, construction camps, and other groups of homes that have been located in sections particularly favorable for propagation of malaria-bearing mosquitoes, although non-*Anopheles* producing areas may exist near by. Such errors of selection of location are even yet common, and create conditions that may require emergency mosquito-control measures.

It is particularly important that this subject should be better understood and more widely known by those directing the development of industries or natural resources, and even more so by those connected with the establishing of military or naval camps. Naval, military, engineering, and technical schools can advantageously give this subject the attention it deserves and thereby reduce serious losses that may otherwise occur.

Temporary emergency measures are not as satisfactory as permanent mosquito eradivative measures; yet at times they are an excellent substitute and can often be made of decided importance in opening up new territory, in engineering construction operations, in colonization, in developing agricultural lands in malarial territory, and in naval and military campaigns. A large economic loss is continually going on for the lack of their application.

In districts of relatively high *Anopheles* prevalence where construction operations or other activities are to be undertaken, laborers or settlers are attracted, and among these people may be sufficient malaria carriers to create conditions favorable to a serious outbreak of malaria. Conditions may or may not be favorable for the control of malaria carriers by means of quinine treatment. In nearly all cases, however, the people will be friendly toward any reasonable action that will reduce or destroy the mosquitoes that annoy them.

Where a large portion of the new arrivals come from nonmalarious territory and mix freely with the malaria carriers in the presence of *Anopheles*, an emergency situation may arise. In very few similar situations are precautionary operations against *Anopheles* production undertaken sufficiently far in advance. They certainly were not at the Panama Canal, nor more recently when we located our military cantonments in the most malarious sections of the South.

It is not unusual for the best plans for permanent *Anopheles* eradivative measures sometimes to fail temporarily and thus create conditions requiring prompt application of auxiliary malaria-control measures. Among such causes might be mentioned the following:

- (1) A reduction of working appropriations.
- (2) A shortage of larvicides.
- (3) A shortage of screen.
- (4) A shortage of quinine.

- (5) A supervising official not in sympathy with antimosquito work.
- (6) A change of directing officials.
- (7) Man-made changes of topography.
- (8) Influx of people from highly malarious districts.
- (9) An unusual rainy period or season.
- (10) Natural changes of topography.
- (11) Sudden and unforeseen appearance of aquatic plants in quantity in bodies of water; wind-driven flotage on (tidal) fresh-water rivers, such as large rafts of eel grass; stream-borne flotage on lakes or from highlands to rivers affected by tides.
- (12) Unexpected reduction of natural mosquito enemies due to unusual season or other causes.

During the construction of the Panama Canal frequent emergency conditions arose or were unnecessarily created which are described in "Mosquito Control in Panama" (4). We can expect similar and also new unexpected conditions and problems to arise with other species of *Anopheles*, and they must be solved locally by sanitarians. Those who are detailed to direct *Anopheles*-control campaigns should consult all sources of information and combine the findings of others with a bountiful supply of common sense in directing malaria-control operations.

The remedy for the emergency situation can often be best determined by a close study of the habits of the local *Anopheles*, which may vary considerably with different species and in different localities. At Panama the most important of the malaria-carrying *Anopheles* were the *albamanus* and *tarsimaculata*. The latter during the dry season rested in ground cracks in the daytime. By placing small bundles of hay under the houses they were induced to ignore the ground cracks and to collect in the small piles of hay. Members of this species at Gatun did not rest on the wooden beams under occupied houses as our *Anopheles quadrimaculatus* does. They would collect under certain houses in the daytime but never under certain other houses near the selected ones.

A close study of the problem has shown that a knowledge of the habits common to many *Anopheles* may be used to advantage by sanitarians in practical malaria control. The following are some of the important points to be kept in mind:

- (1) After many species of *Anopheles* become engorged they rest on the wall or other suitable shaded resting place relatively close to where they obtained their blood meal, and it is not usual for them to fly for a considerable time after becoming engorged.

- (2) Those which have digested their blood meal and are ready for flight depart from their daytime resting place (house or inclosure) either (a) soon after dusk, or (b) soon after daylight.

- (3) In the screened building the *Anopheles* ready to depart collect on the window screens or screen doors during these periods, and, with a little care and practice, practically all of them may be destroyed.

While on the screens they appear to be more interested in escaping from the building than from the person who is destroying them.

(4) The recently engorged *Anopheles* at rest on the walls of the building are relatively easy to destroy. If they are rather closely spaced, a chloroform bottle or a Griffiths catching tube may be used to advantage for collecting them; but ordinarily the common fly swatter will be found of more practical use.

(5) Light-colored walls make the task an easier one. In relatively dark rooms a flash lamp or other suitable artificial light (not too bright) is an advantage in obtaining perfect results.

At the farm-tenant homes where the family has insufficient funds to protect themselves from malaria by making the home mosquito proof, it is known that a considerable reduction in malaria transmission can be accomplished by systematically destroying the *Anopheles* that are to be found each morning resting on the walls of the bedrooms. This is effective where no attempt has been made to screen the building.

Most of our malaria in the United States is conveyed by *Anopheles quadrimaculatus*. This mosquito very rarely bites in the full sunlight and does not like bright lights. It is a night feeder, but will at times attack man in houses in the daytime. When it bites us at our homes, in most instances it rests on the walls of the room where it took its blood meal and remains there quietly for a day. Occasionally some of them go into an adjacent room. After taking the blood meal this particular mosquito appears to be more sluggish and is not as easily alarmed as are some other kinds of mosquitoes. It is relatively easy to destroy, and children, after a few trials, are soon able to find all mosquitoes resting on the walls. On rough wooden walls the resting *Anopheles* look like wooden splinters that stand out from the flat surface. It is possible for the children in the farm-tenant homes to learn how to find and destroy every *Anopheles* in the room, and they enjoy doing it.

If these mosquitoes on the walls are destroyed at a definite hour each morning, then malaria transmission will practically be prevented in that home. There are many localities in which malaria prevalence is of considerable economic importance where eradication of *Anopheles* by drainage may not be undertaken in the near future and where the farm tenants can not screen their homes. In such places this control method can be used to advantage.

Many persons when bothered by pestiferous mosquitoes or when moving into a malarial district are likely to confine their precautions to the use of mosquito lotions and a mosquito bed net. In tents and in dark bedrooms at times we find *Anopheles* resting on these mosquito bars by preference, and careful observations indicate that a considerable number of persons can be bitten through the cotton mosquito bed-net while asleep and be entirely unaware of the fact the following morning. This may be because the bite of some *Anopheles* is less painful than that of other more pestiferous mosquitoes.

Before a person is ready to accept or apply any health-control measure suggested he is likely to want to know what results may be expected from the efforts expended.

During the building of the Panama Canal, Gorgas used the *Anopheles*-control method above described on a large scale in the native thatch huts, at laborers' barracks, in railroad bunk cars, and in both screened and unscreened residences. The results were highly successful, the accounts of which were published.

In 1908 a temporary laborers' camp, consisting of tents, was established near the site of the present Miraflores Locks and used for four and a half months during the rainy season, when malaria transmission is most frequent. This camp was completely surrounded by extensive untreated *Anopheles* breeding places. A laborer with a fly swatter and catching tube was employed to destroy all the *Anopheles* he could find in the tents. Each tent was examined soon after the laborers left each morning. The malaria incidence among the laborers in these tents was thus kept down to 4 per cent per month, or the normal rate at that time for the Canal Zone laborers sleeping in screened buildings at camps where mosquito-control work was being done. No attempt was made to screen the tents in this camp, and the laborers were free to go to any other camps after dark. Some of them did go. Their night visits to other localities may have had a relation to the malaria that appeared at this camp. This malaria sick rate was less than 7 per cent of the rate of our troops living in well-screened barracks located 3 miles away. At both places the malaria-conveying species of *Anopheles* were very numerous.

Another instance of the value of daily destruction of *Anopheles* in sleeping quarters in the same year was at Diablo Hill, about 3 miles from the city of Panama. United States Marines were stationed in well-screened barracks on the hilltop and had a weekly malaria sick rate of 14 per cent. The camp of the railroad laborers was between this same hill and a prolific *Anopheles*-producing swamp. A negro boy was engaged less than an hour each morning to destroy all the *Anopheles* he could find in the bunk cars of this railroad camp. The *Anopheles* that gained entrance to the soldier's barracks were not destroyed. The malaria sick rate of the United States Marines was 42 times that of these railroad laborers, and the camp of the latter was at the edge of the swamp and the screen doors of the bunk cars were kept propped open by the laborers after dusk.

Again, during the period of relocation of the Panama Railroad, the jungle was being flooded by the slowly rising waters of Gatun Lake, making an excellent breeding area for *Anopheles*. Very little was done in the matter of controlling the extensive breeding places of *Anopheles* with which many of these temporary "relocation

camps" were surrounded. The laborers' camps were located close to the water, and native villages were built close to them and contained many malaria carriers. These camps were strung out along a line of about 20 miles of right of way. At these settlements and camps a daily mosquito catch was made. The malaria incidence even under these conditions, by means of daily destruction of engorged *Anopheles*, was kept as low as the incidence of the Canal Zone as a whole, where mosquito production was under excellent control at many camps. It was even lower than at some of the camps in the hill country where hand catching was not used and where laborers lived in well-screened houses. Moreover, during a period of several months the *Anopheles* in native houses and in camp cars in the lake region (Panama Railroad relocation) were all taken alive and sent to the laboratory for dissection, and no infected specimen was found—indicating that, for all practical purposes, this daily catch emergency-control method was decidedly effective. All *Anopheles* that were collected in the careful daily catches were caught before they had time to become infected.

Equally good results were obtained during the historic flight of *Anopheles* at Gatun in 1912, when *Anopheles torsimaculata* from a hydraulic fill containing blackish water became sufficiently numerous to compel the clerical force to cover cane-seated chairs with blotters and to use paper leggings, held in place by elastic bands, as protective measures.

This control method was also used with considerable success at Carazol and at Miraflores, where more than 1,000 *Anopheles* were caught in a single night in a small, properly designed, double-flare mosquito trap about 2 feet long and 8 inches high. At one time the weekly catch of *Anopheles* that gained access to dwellings in the Canal Zone varied from 7,000 to 22,000.

Recently, at a farm home on the coast of Georgia, where the little children of the family were badly infected with malaria, listless and apparently not used to enjoying life, great excitement and interest was aroused when a play game was made up to capture the engorged *Anopheles* resting on the walls of the bedroom and porch. There was lively competition to see who could get the most mosquitoes, and in a short time the children were laughing and thoroughly enjoying the work.

Unquestionably in future years better and more economical methods of *Anopheles* eradication than are now employed will be devised, but in the meantime we can advantageously apply such a method as the one outlined.

It is thought that its practical use and value to our farming population of malarial districts is sufficiently important to cause sanitarians to make it better known and more widely employed.

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## PUBLIC HEALTH ENGINEERING ABSTRACTS

**Progress of the Sewage Disposal Program at Chicago-II.** Edward J. Kelly, Chief Engineer, Sanitary District of Chicago. *Engineering News-Record*, Vol. 96, No. 10, March 11, 1926, pp. 395-400. (Abstracted by C. C. Ruchhoft.)

The North Side Plant, which will be completed in 1928, is being built on 100 acres of land west of the North Shore Channel and just north of the Chicago city limits. It was designed to treat the sewage of a tributary population of 800,000, with an estimated average daily flow of 219 gallons per capita.

The plant proper includes grit chambers, preliminary settling tanks, aeration and settling units, the main building, sewage pumping station, and service station. The 12 grit chambers are 80 feet long, by 8 feet wide, with a water depth of from 4 to 6.5 feet, and will be cleaned by a  $\frac{3}{4}$ -yard bucket operated from an overhead trolley system. Following the grit chambers there are four bar screens 15 feet wide, with 1-inch openings. Eight preliminary settling tanks follow the screens. Each tank will be 80 feet square, with an average depth of 9 feet, and will have a detention period of about 30 minutes. There are three batteries of aeration and settling tanks. Each battery of tanks consists of 12 circulating type aeration tanks, 10 settling tanks, and an operating gallery. Each aeration tank is 34 feet 9 inches wide, by 420 feet long, and is divided into two compartments by a central wall with aeration plates located on one side of the bottom of each compartment. The aeration rate will be 0.75 cubic foot of air per gallon of sewage, with a 6-hour detention period and a 20 per cent sludge return. The depth of sewage over the diffuser plates will be 15 feet. The settling tanks are 77 feet square, are equipped with Dorr clarifiers, and will have a maximum rate of 16,000 gallons per square foot per day.

The collecting system is designed as a sanitary sewerage system only and will consist of 13.8 miles of sewer, including 3.5 miles of 15-foot sewers. The system will carry up to 50 per cent in excess of the dry weather flow as of 1960.

*Buildings.*—The pump and blower house will have a ground area of about 303 feet by 183 feet. It will have seven turbo blowers, four of 40,000 cubic feet and three of 30,000 cubic feet of free air per minute capacity. The large blower units will be directly connected to 2,160-horsepower motors, and the smaller units to 1,650-horsepower motors. Five sewage pumps will be installed in this building. Two pumps, each driven by a 1,000-horsepower motor, will have a capacity of 150 second-feet each under a total head of 44 feet. Three pumps, each driven by a 700-horsepower motor, will have a capacity of 100 second-feet, under a total head of 44 feet. The building will also be equipped with a 34-ton electric crane and a 15-ton monorail hoist. The main building will house general offices, laboratories, storage space, and facilities for the plant operating forces. It will also contain three large venturi meters and four sludge return pumps. A central heating plant, incinerator, machine shop, pipe shop, carpenter shop, and storage space will be provided in the service building.

*Construction progress.*—The aeration and settling tanks, operating gallery, and influent and effluent conduits were completed in December, 1925, one year ahead of schedule. More than 70 per cent of the entire \$27,433,000 North Side Project is now under contract. The methods employed in construction are described, and several photographs and layouts of portions of the plant are presented.

**Method of Excreta Disposal in the Tropics which Entirely Prevents Fly Dissemination.** Maj. A. L. Otway, Royal Army Medical Corps. *Journal Royal Army Medical Corps*, vol. 46, No. 1, January, 1926, pp. 14–22. (Abstracted by Isador W. Mendelsohn.)

The writer describes in detail a type of pit for burying excreta in tropical countries which prevents fly-breeding in the excreta and subsequent dissemination and produces practically no odor or other nuisance. Pails are used for collecting the excreta in privies, and their contents are disposed of in pits which are 18 feet to 20 feet long, 3½ feet to 4 feet wide, and 10 feet to 12 feet deep, depending on soil and other conditions. The pit is sealed by placing over it bush timber joints covered with plain leaves and beaten earth, called "swish," which is then tarred or treated with heavy oil. A hole is left at one end for the trap and the filling orifice is placed at the other end, and not less than 6 feet to 10 feet from the trap. The whole pit is protected by a thatch or palm-leaf roof and sides supported on bush timber. The area protected extends some 2 feet to 3 feet around the pit.

The trap consists of a copper gauze cone fashioned like a lamp shade, placed inside of a box, the top of which is covered with copper gauze. The bottom of the box has a hole in it the size of the hole in the pit, and the base of the copper gauze cone is placed over this hole, all the fittings being closely fastened to prevent escape of flies.

This trapped pit is based upon the principles that flies breed from deep pits in which excrement is deposited, and from deep pit latrines, and that such newly developed flies make directly for the nearest point of light to get out and obtain food. This method of excreta disposal was used because neither water carriage of sewage nor incineration was possible.

Traps of the type described have caught 250,000 flies and over in five to six days, assuming that there are 10,000 flies to a pint. Four species of fly were identified: *Lucilia caesar* (green bottle); *Calliphora vomitoria*; *M. domestica*; and *Sarcophaga*.

**A Family of Typhoid Carriers.** Anna Dean Dulaney. *American Journal of Public Health*, vol. 15, No. 10, October, 1925, pp. 885-886. (Abstracted by A. S. Bedell.)

Twenty-two cases of typhoid in Columbia, Mo., were traced to a typhoid carrier family. The father had typhoid 26 years previously, the mother 16 years previously, and the daughter-in-law 10 months previously (shortly after marriage). Eight years previously the father, a chronic relapsing carrier, was required to close his dairy following a typhoid outbreak. In June, 1925, the son and his wife took charge of operating their new dairy. Three weeks later the typhoid outbreak among the dairy patrons began. Sanitary conditions were unsatisfactory with regard to location of milk house, privy, and well.

**Some Heat Resisting Streptococci Found in Market Milk.** H. O. Way. International Association of Dairy and Milk Inspectors *Fourteenth Annual Report*, October 12, 14, 1925, pp. 179-183. (Abstracted by Malcom Lewis.)

Analysis of bottled Pasteurized milk from three Pasteurizing plants showed the presence of 100,000 to 400,000 bacteria by plate count. Microscopic examination showed large numbers of streptococci occurring usually in pairs and sometimes in chains of four or six. In the raw milk, chains of 6, 8, or 10, and sometimes 14 or 16 cocci occurred. Agar plates showed a predominance of very small "pin point" colonies of two types. One is slightly filiform or elongated; the other nearly round, with a very slight halo. After heating a sample of raw milk counting about 80,000 of these colonies to 142°-145° F. for 72 hours, the count was found to be practically unchanged. These organisms have withstood 162° F. for one hour. Vat samples ran as high as 200,000 to 300,000 colonies after Pasteurization.



From plant-control samples and a study of methods it was concluded that increase in colonies was due not to growth, but to a breaking up of chains from heat of Pasteurization and pump agitation.

Examination of plants of shippers whose raw milk contained large numbers of these organisms showed as the probable cause, udder or teat infection other than garget in 20 per cent of the cases, and teat cups and rubber tube connections of milking machines in the other 80 per cent. Search for the source of organisms showed cow urine to be free except when contaminated with feces, and that cow feces contained a large number of these organisms.

The presence of large numbers of these organisms in a Pasteurized milk supply suggests an insanitary condition either in the herd or in the milk-handling equipment. Teats may be infected either in the milk canal or on the outside.

### AUTOMOBILE FATALITIES, JANUARY 3 TO MAY 22, 1926

The Department of Commerce announces that reports of automobile fatalities for the four-week period ending May 22 have been received from 79 large cities in the United States. The total number of such fatalities in these cities was 487 as contrasted with 426 for the corresponding four weeks of 1925, and the daily averages for the two four-week periods were 17.4 and 15.2, respectively. The numbers in 14 periods of 4 weeks were as follows:

#### *Four weeks ending—*

May 22, 1926..... 487	Jan. 2, 1926..... 558	Aug. 15, 1925..... 469
Apr. 24, 1926..... 424	Dec. 5, 1925..... 632	July 18, 1925..... 495
Mar. 27, 1926..... 350	Nov. 7, 1925..... 616	June 20, 1925..... 492
Feb. 27, 1926..... 378	Oct. 10, 1925..... 528	May 23, 1925..... 424
Jan. 30, 1926..... 434	Sept. 12, 1925..... 531	

Eight cities showed no automobile fatalities for the four weeks ended May 22, 1926, while 11 showed no fatalities for the corresponding period of 1925. New Bedford has a clean sheet for 20 weeks.

For 55 cities in the four-week period, automobile deaths where both the death and the accident occurred within city limits totaled 312, as against a total of 353 for all deaths from automobile accidents regardless of whether the accident occurred within or outside the city limits.

*Automobile fatalities reported during the four weeks ending May 22, 1926*

[Figures show deaths in each city, regardless of place of accident, and regardless of residence. The figures for 1925 and 1926 are provisional]

City	Automobile fatalities									
	Number			Annual rate per 100,000 estimated population						
	Four weeks ending—		Jan. 3 to May 22, 1926	Four weeks ending—		Jan. 3 to May 22, 1925	Corresponding period, 1925	Calendar year		
	May 22, 1926	May 23, 1925		May 22, 1926	May 23, 1925			1925	1924	
Total (79 cities).....	487	426	2,074	19.9	18.6	16.8	16.2	19.8	19.5	
Total (67 cities).....	444	408	1,879							
Albany.....	3	1	10	32.9	11.1	21.0	16.9	25.1	23.9	
Baltimore.....	14	12	40	22.6	19.6	12.9	9.9	17.9	16.4	
Birmingham.....	4	2	21	21.7	12.7	25.9	13.3	24.4	27.4	
Boston.....	9	6	37	14.0	10.0	12.3	15.1	18.5	18.4	
Buffalo.....	14	7	44	33.5	17.0	21.1	15.7	22.5	21.0	
Cambridge.....	0	1	7	0	10.9	13.0	18.7	18.9	22.8	
Camden.....	6	0	16	58.7	0	31.8	17.4	30.6	28.5	
Canton.....	1	1	10	11.9	12.3	23.7	21.0	27.8	19.5	
Chicago.....	40	49	211	17.1	21.3	18.0	16.9	19.9	19.0	
Cincinnati.....	4	10	36	12.7	31.8	22.8	33.7	30.6	20.8	
Cleveland.....	17	17	69	23.1	23.7	18.7	23.4	24.3	24.1	
Columbus.....	3	8	14	13.7	37.3	12.8	19.5	24.0	22.0	
Dallas.....	5	2	23	32.6	13.5	30.0	27.7	25.2	19.2	
Dayton.....	3	2	14	22.1	15.1	20.6	17.7	17.3	15.4	
Denver.....	3	2	15	13.7	9.3	13.7	11.5	13.3	14.5	
Des Moines.....	0	0	6	0	0	10.7	3.5	13.2	12.1	
Detroit.....	22	24	99	22.2	25.1	20.0	17.6	23.7	25.5	
Duluth.....	1	1	8	11.5	11.8	18.5	9.0	21.4	17.5	
El Paso.....	0	2	9	0	24.8	21.5	33.1	30.0	20.9	
Fall River.....	1	0	5	10.0	0	10.0	13.9	13.1	12.5	
Flint.....	2	2	6	19.0	20.0	11.4	9.8	18.3	16.9	
Fort Worth.....	3	1	12	24.6	8.6	19.7	11.4	14.8	18.2	
Grand Rapids.....	3	2	8	25.1	17.0	13.4	15.3	20.1	20.9	
Indianapolis.....	8	3	51	28.4	10.9	22.0	15.9	19.5	20.2	
Jacksonville, Fla.....	1	3	12	13.5	41.0	32.4	31.2	50.5	22.1	
Jersey City.....	3	4	11	12.3	16.5	9.0	17.3	19.7	17.9	
Kansas City, Kans.....	0	3	2	0	33.7	4.5	13.2	16.3	15.6	
Kansas City, Mo.....	4	4	20	13.9	14.2	13.9	18.9	23.0	24.2	
Louisville.....	1	4	15	4.2	17.3	12.6	21.4	20.8	19.8	
Lynn.....	0	0	4	0	0	10.0	7.4	14.5	20.5	
Memphis.....	6	4	19	44.2	29.9	28.0	29.9	27.6	23.2	
Milwaukee.....	6	3	24	15.1	7.8	12.1	11.4	20.2	16.8	
Minneapolis.....	5	7	22	15.0	21.4	13.2	12.6	17.5	20.6	
Nashville.....	3	3	10	28.5	28.7	19.0	26.2	26.3	27.5	
New Haven.....	3	3	15	21.5	21.9	21.5	12.5	23.1	27.3	
New Orleans.....	6	3	33	18.7	9.4	20.5	19.8	19.2	20.5	
New York.....	89	80	345	19.6	17.8	15.2	14.5	17.0	17.2	
Newark, N. J.....	14	7	39	39.8	20.2	22.2	18.0	22.2	23.3	
Norfolk.....	1	2	6	7.5	15.4	9.0	11.7	8.1	9.7	
Oakland.....	2	2	11	10.0	10.3	11.0	13.7	16.2	19.8	
Omaha.....	3	1	16	18.2	6.2	19.4	6.0	15.5	13.9	
Paterson.....	4	5	12	36.5	46.0	21.9	28.8	28.8	34.6	
Philadelphia.....	22	27	91	14.3	17.8	11.8	11.9	15.2	13.5	
Pittsburgh.....	12	13	55	24.6	24.8	22.5	19.8	27.7	29.7	
Providence.....	6	12	18	28.4	58.4	17.1	30.5	29.3	22.0	
Richmond.....	4	0	13	27.6	0	17.9	17.3	21.1	18.0	
Rochester.....	7	2	24	28.4	8.2	17.1	7.3	16.3	15.3	
St. Louis.....	13	11	62	20.4	17.5	19.5	19.0	23.4	24.2	
St. Paul.....	3	3	14	15.8	15.9	14.7	17.6	19.0	22.5	
Salt Lake City.....	2	7	8	19.6	69.7	15.7	20.9	30.8	25.4	
San Antonio.....	4	2	15	25.4	13.2	19.1	12.9	19.6	11.5	
San Diego.....	2	3	15	23.7	36.9	35.6	35.1	39.9	27.0	
San Francisco.....	9	11	34	20.7	25.7	15.6	18.3	15.7	20.6	
Schenectady.....	3	1	8	42.1	14.0	22.4	13.8	25.8	22.7	
Somerville.....	0	0	8	0	0	20.9	5.2	14.1	10.2	
Spokane.....	0	1	6	0	12.0	14.4	14.1	16.4	21.0	
Springfield, Mass.....	4	1	11	36.0	9.2	19.8	5.4	17.9	10.2	
Syracuse.....	5	2	15	35.4	14.3	21.3	10.9	15.7	22.7	
Tacoma.....	1	0	13	12.3	0	32.0	14.3	17.0	20.4	
Toledo.....	9	1	19	39.9	4.5	16.8	17.3	22.6	16.4	
Tranton.....	1	4	9	9.7	39.5	17.5	23.2	28.6	25.2	
Utica.....	2	2	4	25.3	25.7	10.1	12.2	20.3	24.8	
Washington, D. C.....	5	4	29	12.3	10.5	14.3	15.5	17.4	22.2	
Wilmington, Del.....	3	2	11	31.5	21.4	23.1	16.3	13.7	24.2	
Worcester.....	4	2	13	27.0	13.7	17.6	7.8	20.1	15.3	
Yonkers.....	1	0	7	11.2	0	15.7	6.7	14.0	14.4	
Youngstown.....	5	5	13	39.5	40.8	20.5	21.7	27.7	25.1	

*Automobile fatalities reported during the four weeks ending May 22, 1926—*  
Continued

[Figures show deaths in each city, regardless of place of accident, and regardless of residence. The figures for 1925 and 1926 are provisional]

City	Automobile fatalities								
	Number			Annual rate per 100,000 estimated population					
	Four weeks ending—		Jan. 3 to May 22, 1926	Four weeks ending—		Jan. 3 to May 22, 1926	Corresponding period, 1925	Calendar year	
	May 22, 1926	May 23, 1925		May 22, 1926	May 23, 1925			1925	1924
<i>Partial data for 12 cities</i>									
Akron.....	4	3	11	(1)	(1)	(1)	(1)	(1)	(1)
Atlanta.....	5	1	22	(1)	(1)	(1)	(1)	(1)	(1)
Bridgeport.....	1	1	5	(1)	(1)	(1)	(1)	(1)	(1)
Erie.....	5	0	7	(1)	(1)	(1)	(1)	(1)	(1)
Houston.....	3	1	13	(1)	7.9	(1)	15.5	14.5	19.4
Los Angeles.....	14	7	88	(1)	7.9	(1)	(1)	(1)	(1)
Lowell.....	3	0	4	(1)	0	(1)	9.3	24.3	20.8
New Bedford.....	0	0	0	(1)	0	(1)	2.1	12.3	10.9
Oklahoma City.....	2	1	13	(1)	(1)	(1)	(1)	(1)	(1)
Portland, Oreg.....	2	1	14	(1)	4.6	(1)	12.3	17.4	14.7
Seattle.....	3	2	17	(1)	(1)	(1)	(1)	(1)	(1)
Waterbury.....	1	1	1	(1)	(1)	(1)	(1)	(1)	(1)

<sup>1</sup> Rates are omitted, pending the establishment of more satisfactory estimates of population.

## DEATH RATES IN A GROUP OF INSURED PERSONS

### RATES FOR PRINCIPAL CAUSES OF DEATH FOR APRIL, 1926

The accompanying table is taken from the Statistical Bulletin for May, 1926, published by the Metropolitan Life Insurance Co., and presents the mortality experience of the industrial insurance department of the company for April, 1926, as compared with March, 1926, and with April and year, 1925. The rates are based on a strength of approximately 17,000,000 insured persons in the industrial populations of the United States and Canada.

The death rate for April (12.0 per 1,000 industrial policyholders) is substantially the same as that for March (12.1). It failed to show the usual seasonal decline. This high rate is attributed to continued increased mortality from influenza and pneumonia, these two diseases accounting for one-fourth of the total number of deaths. The influenza death rate (91.3 per 100,000) was more than double last year's figure, while pneumonia mortality increased approximately 40 per cent as compared with April a year ago. It is stated that the peak of the influenza and pneumonia death rates had been passed by the latter part of April.

Unusually high mortality from measles continued, the April death rate for the disease (21.3 per 100,000) closely approached that for March (21.5), which was the highest rate for this cause in the records of the company.

Whooping cough shows a higher death rate in April (15.4) than in March (13.6), and 71 per cent increase over the rate for April, 1925 (9).

The death rate for scarlet fever was low in April, showing little change from last year's figure; while diphtheria shows a small decline from the rate for March and a marked reduction as compared with April of last year.

The tuberculosis death rate (114.9 per 100,000) was practically the same as the rate for March, but was considerably higher than that for April, 1925. At the end of April the cumulative death rate for tuberculosis among this group of persons was substantially the same as that for last year.

The "degenerative" diseases (cerebral hemorrhage, Bright's disease, and organic heart disease) each recorded higher rates than for April, 1925. This increase is stated to be largely a reflex of this year's influenza outbreak.

The rate for puerperal diseases showed an improvement in April over the same month of last year, as has been the case for the other months so far this year. This is noted as being unusual in view of the above-average prevalence of influenza.

*Death rates (annual basis) for principal causes per 100,000 lives exposed, March and April, 1926, and April and year, 1925*

[Industrial department, Metropolitan Life Insurance Co.]

Cause of death	Rate per 100,000 lives exposed <sup>1</sup>			
	April, 1926	March, 1926	April, 1925	Year 1925 <sup>2</sup>
Total, all causes.....	1,199.4	1,210.6	1,034.3	906.9
Typhoid fever.....	2.5	2.4	2.0	4.6
Measles.....	21.3	21.5	4.6	3.3
Scarlet fever.....	5.1	4.7	4.9	3.5
Whooping cough.....	15.4	13.6	9.0	7.7
Diphtheria.....	9.0	9.2	13.1	10.6
Influenza.....	91.3	76.1	45.4	21.9
Tuberculosis (all forms).....	114.9	115.2	107.4	98.0
Tuberculosis of respiratory system.....	99.5	100.4	94.0	85.8
Cancer.....	77.1	77.1	71.4	70.5
Diabetes mellitus.....	20.1	21.6	16.4	15.2
Cerebral hemorrhage.....	61.3	65.4	57.7	53.5
Organic diseases of heart.....	171.8	174.3	141.1	126.6
Pneumonia (all forms).....	191.0	194.0	136.6	86.5
Other respiratory diseases.....	19.6	18.8	17.2	13.3
Diarrhea and enteritis.....	17.8	16.9	17.8	36.6
Bright's disease (chronic nephritis).....	82.6	91.8	77.6	69.8
Puerperal state.....	17.9	17.4	19.3	16.5
Suicides.....	7.6	7.0	7.3	6.9
Homicides.....	7.6	6.5	7.8	7.2
Other external causes (excluding suicides and homicides).....	53.1	55.7	58.4	64.2
Traumatism by automobiles.....	13.5	9.6	13.9	16.6
All other causes.....	212.6	218.3	219.4	190.6

<sup>1</sup> All figures include infants insured under 1 year of age.

<sup>2</sup> Based on provisional estimates of lives exposed to risk in 1925.

## DEATHS DURING WEEK ENDED JUNE 5, 1926

Summary of information received by telegraph from industrial insurance companies for week ended June 5, 1926, and corresponding week of 1925. (From the Weekly Health Index June 8, 1926, issued by the Bureau of the Census, Department of Commerce)

	Week ended June 5, 1926	Corresponding week 1925
Policies in force.....	64, 661, 646	60, 135, 708
Number of death claims.....	10, 445	10, 774
Death claims per 1,000 policies in force, annual rate.....	8. 4	9. 3

Deaths from all causes in certain large cities of the United States during the week ended June 5, 1926, infant mortality, annual death rate, and comparison with corresponding week of 1925. (From the Weekly Health Index, June 8, 1926, issued by the Bureau of the Census, Department of Commerce)

City	Week ended June 5, 1926		Annual death rate per 1,000 corresponding week, 1925	Deaths under 1 year		Infant mortality rate, week ended June 5, 1926 <sup>1</sup>
	Total deaths	Death rate <sup>2</sup>		Week ended June 5, 1926	Corresponding week, 1925	
Total (65 cities) .....	6, 816	12. 3	14. 2	738	973	<sup>3</sup> 61
Akron.....	39			5	3	53
Albany <sup>4</sup> .....	24	10. 5	12. 8	2	2	42
Atlanta.....	70			6	12	
White.....	36			3		
Colored.....	34	( <sup>5</sup> )		3		
Baltimore <sup>4</sup> .....	215	13. 9	15. 4	19	20	55
White.....	168			14		50
Colored.....	47	( <sup>5</sup> )		5		81
Birmingham.....	87	21. 5	16. 0	13	10	
White.....	36			4		
Colored.....	51	( <sup>5</sup> )		9		
Boston.....	199	13. 2	15. 5	24	41	68
Bridgeport.....	29			3	2	51
Buffalo.....	156	15. 0	17. 3	25	35	104
Cambridge.....	28	12. 0	12. 2	3	6	50
Camden.....	31	12. 3	13. 4	0	5	0
Canton.....	28	13. 3	10. 3	4	1	89
Chicago <sup>4</sup> .....	633	10. 8	12. 6	72	81	64
Cincinnati.....	137	17. 4	17. 3	16	7	100
Cleveland.....	182	9. 9	15. 1	22	39	57
Columbus.....	68	12. 4	17. 1	6	10	55
Dallas.....	45	11. 7	12. 7	2	12	
White.....	38			2		
Colored.....	7	( <sup>5</sup> )		0		
Dayton.....	57	16. 8	16. 0	4	4	63
Denver.....	79	14. 5	14. 8	7	8	
Des Moines.....	30	10. 7	11. 8	2	3	33
Detroit.....	291	11. 8	13. 9	41	67	06
Duluth.....	29	13. 4	11. 3	1	3	23
El Paso.....	53	25. 4	15. 9	20	9	
Erie.....	32			8	5	152
Fall River <sup>4</sup> .....	35	13. 9	8. 9	6	2	87
Flint.....	23	8. 8	8. 0	5	4	83
Fort Worth.....	28	9. 2	8. 2	4	2	
White.....	24			4		
Colored.....	4	( <sup>5</sup> )		0		
Grand Rapids.....	32	10. 7	13. 2	5	5	72
Houston.....	66			13	7	
White.....	46			7		
Colored.....	20	( <sup>5</sup> )		0		
Indianapolis.....	102	14. 5	16. 6	11	11	81
White.....	86			7		59
Colored.....	16			4		220

<sup>1</sup> Annual rate per 1,000 population.

<sup>2</sup> Deaths under 1 year per 1,000 births. Cities left blank are not in the registration area for births.

<sup>3</sup> Data for 63 cities.

<sup>4</sup> Deaths for week ended Friday, June 4, 1926.

<sup>5</sup> In the cities for which deaths are shown by color, the colored population in 1920 constituted the following percentages of the total population: Atlanta 31, Baltimore 15, Birmingham 39, Dallas 15, Fort Worth 14, Houston 25, Kansas City, Kans., 14, Louisville 17, Memphis 38, Nashville 30, New Orleans 26, Norfolk 38, Richmond 32, and Washington, D. C., 25.

Deaths from all causes in certain large cities of the United States during the week ended June 5, 1926, infant mortality, annual death rate, and comparison with corresponding week of 1925. (From the Weekly Health Index, June 8, 1926, issued by the Bureau of the Census, Department of Commerce)—Continued

City	Week ended June 5, 1926		Annual death rate per 1,000 corresponding week, 1925	Deaths under 1 year		Infant mortality rate, week ended June 5, 1926
	Total deaths	Death rate		Week ended June 5, 1926	Corresponding week, 1925	
Jersey City	59	9.7	14.2	11	10	78
Kansas City, Kans.	28	12.5	11.7	1	3	17
White	17			0	—	0
Colored	11	( <sup>9</sup> )		1	—	131
Kansas City, Mo.	94	13.1	13.2	15	4	—
Los Angeles	203			7	41	50
Louisville	91	15.3	16.4	1	3	60
White	26			0	—	60
Colored	31	( <sup>9</sup> )		1	—	63
Lowell	16	8.0	11.2	1	3	19
Lynn	47	13.8	20.6	5	4	25
Memphis	21			1	14	—
White	23			4	—	—
Colored	102	( <sup>9</sup> )		17	27	79
Milwaukee	83	10.3	11.7	14	8	78
Minneapolis	40	10.0	12.5	8	5	—
Nashville	24	15.2	14.9	5	—	—
White	16			3	—	—
Colored	42	( <sup>9</sup> )		11	5	191
New Bedford	46	13.2	20.4	6	4	82
New Haven	127	15.8	19.6	6	24	—
New Orleans	66			2	—	—
White	61	( <sup>9</sup> )		4	—	—
Colored	1,347	11.9	14.2	141	200	57
New York	167	9.7	10.8	11	15	36
Bronx Borough	455	10.6	13.3	48	81	49
Brooklyn Borough	584	16.2	18.4	69	85	76
Manhattan Borough	104	7.1	9.3	10	16	45
Queens Borough	37	13.5	14.3	3	3	53
Richmond Borough	81	9.2	14.1	3	22	38
Newark, N. J.	37	11.1	9.6	3	9	56
Norfolk	17			0	—	0
White	20	( <sup>9</sup> )		5	—	149
Colored	40	8.0	9.6	0	3	58
Oakland	19			8	6	—
Oklahoma City	43	11.6	9.4	4	9	84
Omaha	43	15.7	14.7	4	9	70
Paterson	464	12.0	13.3	39	54	52
Philadelphia	162	13.3	18.0	14	25	47
Pittsburgh	59			5	3	51
Portland, Oreg.	71	13.5	14.0	9	6	75
Providence	49	13.5	17.9	2	4	25
Richmond	31			2	—	39
White	18	( <sup>9</sup> )		0	—	0
Colored	85	13.8	11.5	9	3	72
Rochester	184	11.6	13.3	14	15	—
St. Louis	54	11.4	12.1	1	4	9
St. Paul	28	11.0	8.8	3	2	41
Salt Lake City	51	13.0	14.2	14	16	—
San Antonio	44	20.9	16.2	3	6	63
San Diego	144	13.2	14.3	8	6	48
San Francisco	17	9.5	14.6	5	4	144
Schenectady	64			3	5	28
Seattle	20	10.4	16.8	3	5	78
Somerville	35	16.7	12.9	5	3	117
Spokane	36	12.9	14.3	1	6	14
Springfield, Mass.	47	13.3	10.3	6	4	76
Syracuse	24	11.8	13.5	4	2	93
Tacoma	60	10.6	16.3	4	12	39
Toledo	146	15.6	16.6	2	3	33
Trunkton	146	14.4	20.0	12	29	68
Washington, D. C.	80			6	—	50
White	14	( <sup>9</sup> )		6	—	109
Colored	14			4	1	86
Waterbury	32	13.5	12.4	1	6	23
Wilmington, Del.	43	13.0	13.7	5	4	58
Worcester	27	12.1	11.0	4	4	90
Yonkers	27	8.5	11.7	6	3	76

For footnotes 4 and 5 see p. 1233.

# PREVALENCE OF DISEASE

*No health department, State or local, can effectively prevent or control disease without knowledge of when, where, and under what conditions cases are occurring*

## UNITED STATES

### CURRENT WEEKLY STATE REPORTS

These reports are preliminary and the figures are subject to change when later returns are received by the State health officers

#### Reports for Week Ended June 12, 1926

ALABAMA		ARKANSAS—continued	
	Cases		Cases
Cerebrospinal meningitis.....	2	Mumps.....	24
Chicken pox.....	40	Pellagra.....	19
Diphtheria.....	3	Scarlet fever.....	11
Influenza.....	1	Smallpox.....	3
Lethargic encephalitis.....	2	Trachoma.....	5
Malaria.....	24	Tuberculosis.....	11
Measles.....	308	Typhoid fever.....	4
Mumps.....	10	Whooping cough.....	33
Pellagra.....	19		
Pneumonia.....	37	CALIFORNIA	
Scarlet fever.....	4	Cerebrospinal meningitis:	
Smallpox.....	37	Los Angeles.....	1
Tetanus.....	1	Stanislaus County.....	1
Trachoma.....	1	Chicken pox.....	213
Tuberculosis.....	37	Diphtheria.....	95
Typhoid fever.....	15	Influenza.....	13
Typhus fever.....	3	Measles.....	502
Whooping cough.....	41	Mumps.....	229
		Poliomyelitis:	
ARIZONA		Pasadena.....	1
Chicken pox.....	5	Santa Barbara County.....	1
Measles.....	16	Scarlet fever.....	135
Mumps.....	2	Smallpox.....	22
Pneumonia.....	2	Typhoid fever.....	10
Scarlet fever.....	17	Whooping cough.....	67
Tuberculosis.....	18		
Tuberculous meningitis.....	1	COLORADO	
Typhoid fever.....	8	Chicken pox.....	38
Whooping cough.....	5	Diphtheria.....	16
		Influenza.....	1
ARKANSAS		Measles.....	78
Cerebrospinal meningitis.....	1	Mumps.....	1
Chicken pox.....	21	Poliomyelitis.....	1
Diphtheria.....	2	Scarlet fever.....	21
Hookworm disease.....	3	Smallpox.....	1
Influenza.....	14	Tuberculosis.....	46
Malaria.....	40	Typhoid fever.....	4
Measles.....	73	Whooping cough.....	88

CONNECTICUT		IDAHO	
	Cases		Cases
Cerebrospinal meningitis.....	1	Chicken pox.....	4
Chicken pox.....	58	Diphtheria.....	2
Diphtheria.....	9	Measles.....	10
German measles.....	45	Mumps.....	2
Influenza.....	5	Scarlet fever.....	7
Measles.....	444	Smallpox.....	2
Mumps.....	22	Typhoid fever.....	1
Pneumonia (broncho).....	30	Whooping cough.....	14
Pneumonia (lobar).....	30		
Scarlet fever.....	79	ILLINOIS	
Smallpox.....	1	Cerebrospinal meningitis—Cook County.....	1
Tuberculosis (pulmonary).....	28	Chicken pox.....	282
Typhoid fever.....	3	Diphtheria.....	114
Whooping cough.....	44	Influenza.....	51
		Lethargic encephalitis:	
DELAWARE		Cook County.....	3
Measles.....	31	Jacon County.....	1
Scarlet fever.....	3	Measles.....	1,291
Tuberculosis.....	6	Mumps.....	77
Whooping cough.....	3	Pneumonia.....	215
		Scarlet fever.....	250
DISTRICT OF COLUMBIA		Smallpox.....	37
Chicken pox.....	26	Tuberculosis.....	400
Diphtheria.....	6	Typhoid fever.....	16
Influenza.....	1	Whooping cough.....	196
Measles.....	136		
Pneumonia.....	20	INDIANA	
Scarlet fever.....	19	Chicken pox.....	57
Smallpox.....	1	Diphtheria.....	14
Tuberculosis.....	21	Influenza.....	21
Typhoid fever.....	1	Measles.....	419
Whooping cough.....	37	Pneumonia.....	2
		Poliomyelitis.....	1
FLORIDA		Scarlet fever.....	90
Chicken pox.....	21	Smallpox.....	54
Dengue.....	1	Tuberculosis.....	56
Diphtheria.....	7	Typhoid fever.....	7
Influenza.....	3	Whooping cough.....	80
Malaria.....	6		
Measles.....	42	KANSAS	
Mumps.....	11	Chicken pox.....	53
Pneumonia.....	4	Diphtheria.....	5
Scarlet fever.....	8	German measles.....	4
Smallpox.....	64	Influenza.....	35
Tuberculosis.....	2	Leprosy.....	1
Typhoid fever.....	16	Lethargic encephalitis.....	1
Whooping cough.....	15	Measles.....	294
		Mumps.....	9
GEORGIA		Pellagra.....	1
Chicken pox.....	15	Pneumonia.....	81
Diphtheria.....	6	Scarlet fever.....	35
Dysentery.....	65	Smallpox.....	7
Hookworm disease.....	6	Tuberculosis.....	24
Influenza.....	8	Typhoid fever.....	4
Malaria.....	44	Whooping cough.....	166
Measles.....	73		
Mumps.....	9	LOUISIANA	
Pellagra.....	10	Diphtheria.....	8
Pneumonia.....	23	Influenza.....	30
Scarlet fever.....	1	Pellagra.....	11
Septic sore throat.....	6	Pneumonia.....	9
Smallpox.....	23	Scarlet fever.....	14
Tuberculosis.....	22	Smallpox.....	31
Typhoid fever.....	38	Tuberculosis.....	60
Whooping cough.....	32	Typhoid fever.....	20
		Whooping cough.....	6



MAINE		MINNESOTA	
	Cases		Cases
Chicken pox.....	15	Chicken pox.....	104
Diphtheria.....	10	Diphtheria.....	54
German measles.....	56	Influenza.....	2
Influenza.....	4	Measles.....	741
Measles.....	125	Pneumonia.....	7
Mumps.....	8	Scarlet fever.....	211
Paratyphoid fever.....	2	Smallpox.....	8
Pneumonia.....	6	Tuberculosis.....	41
Scarlet fever.....	12	Typhoid fever.....	3
Tuberculosis.....	2	Whooping cough.....	51
Tuberculous meningitis.....	1		
Typhoid fever.....	3	MISSISSIPPI	
Whooping cough.....	18	Diphtheria.....	6
		Polomyelitis.....	1
MARYLAND <sup>1</sup>		Scarlet fever.....	3
Cerebrospinal meningitis.....	1	Smallpox.....	15
Chicken pox.....	87	Typhoid fever.....	8
Diphtheria.....	14		
Dysentery.....	3	MISSOURI	
German measles.....	5	(Exclusive of Kansas City)	
Influenza.....	5	Chicken pox.....	14
Measles.....	138	Diphtheria.....	65
Mumps.....	96	Influenza.....	1
Pneumonia (broncho).....	23	Malaria.....	3
Pneumonia (lobar).....	22	Measles.....	462
Scarlet fever.....	45	Mumps.....	6
Septic sore throat.....	1	Ophthalmia neonatorum.....	1
Tetanus.....	1	Scarlet fever.....	110
Tuberculosis.....	62	Smallpox.....	12
Typhoid fever.....	7	Trachoma.....	6
Whooping cough.....	58	Tuberculosis.....	46
		Typhoid fever.....	6
MASSACHUSETTS		Whooping cough.....	68
Cerebrospinal meningitis.....	2		
Chicken pox.....	187	MONTANA	
Conjunctivitis (suppurative).....	5	Cerebrospinal meningitis.....	2
Diphtheria.....	49	Chicken pox.....	10
German measles.....	320	Diphtheria.....	10
Influenza.....	8	German measles.....	9
Lethargic encephalitis.....	1	Measles.....	64
Malaria.....	2	Mumps.....	2
Measles.....	732	Rocky Mountain spotted fever:	
Mumps.....	156	Beebe.....	1
Ophthalmia neonatorum.....	35	St. Xavier.....	1
Pellagra.....	2	Winston.....	1
Pneumonia (lobar).....	90	Scarlet fever.....	31
Polomyelitis.....	1	Smallpox.....	4
Scarlet fever.....	222	Tuberculosis.....	6
Septic sore throat.....	4	Typhoid fever.....	2
Trichinosis.....	1	Whooping cough.....	5
Tuberculosis (pulmonary).....	92		
Tuberculosis (other forms).....	48	NEBRASKA	
Typhoid fever.....	11	Chicken pox.....	25
Whooping cough.....	214	Diphtheria.....	6
		Influenza.....	14
MICHIGAN		Lethargic encephalitis.....	1
Diphtheria.....	102	Measles.....	51
Measles.....	925	Mumps.....	9
Pneumonia.....	92	Scarlet fever.....	79
Scarlet fever.....	289	Smallpox.....	23
Smallpox.....	4	Tuberculosis.....	5
Tuberculosis.....	48	Whooping cough.....	16
Typhoid fever.....	9		
Whooping cough.....	170	NEW JERSEY	
		Cerebrospinal meningitis.....	2
		Chicken pox.....	141
		Diphtheria.....	77
		Influenza.....	2
		Malaria.....	1

<sup>1</sup> Week ended Friday.

NEW JERSEY—continued	
	Cases
Measles.....	889
Pneumonia.....	97
Scarlet fever.....	201
Trachoma.....	1
Typhoid fever.....	3
Whooping cough.....	72

NEW MEXICO	
Cerebrospinal meningitis.....	1
Chicken pox.....	5
Diphtheria.....	8
German measles.....	1
Measles.....	9
Mumps.....	1
Pneumonia.....	2
Poliomyelitis.....	2
Scarlet fever.....	5
Smallpox.....	1
Tuberculosis.....	36
Typhoid fever.....	4
Whooping cough.....	23

NEW YORK	
(Exclusive of New York City)	
Cerebrospinal meningitis.....	1
Chicken pox.....	221
Diphtheria.....	70
German measles.....	513
Influenza.....	140
Malaria.....	3
Measles.....	2,450
Mumps.....	137
Ophthalmia neonatorum.....	1
Pneumonia.....	238
Poliomyelitis.....	2
Scarlet fever.....	133
Smallpox.....	5
Tetanus.....	1
Typhoid fever.....	15
Vincent's angina.....	8
Whooping cough.....	282

NORTH CAROLINA	
Cerebrospinal meningitis.....	2
Chicken pox.....	56
Diphtheria.....	25
German measles.....	109
Measles.....	290
Poliomyelitis.....	3
Scarlet fever.....	26
Smallpox.....	19
Typhoid fever.....	16
Whooping cough.....	251

OKLAHOMA	
(Exclusive of Oklahoma City and Tulsa)	
Chicken pox.....	22
Diphtheria.....	3
Influenza.....	34
Malaria.....	37
Measles.....	110
Mumps.....	11
Pellagra.....	16
Pneumonia.....	11

<sup>2</sup> Deaths.

OKLAHOMA—continued	
Poliomyelitis.....	3
Scarlet fever.....	15
Smallpox.....	4
Typhoid fever.....	21
Whooping cough.....	62

OREGON	
Cerebrospinal meningitis.....	2
Chicken pox.....	41
Diphtheria.....	20
Influenza.....	13
Measles.....	78
Mumps.....	21
Pneumonia.....	5
Rocky Mountain spotted fever.....	1
Scarlet fever.....	47
Septic sore throat.....	3
Smallpox:	
Portland.....	13
Scattering.....	36
Tuberculosis.....	4
Typhoid fever.....	3
Whooping cough.....	45

PENNSYLVANIA	
Anthrax—Philadelphia.....	1
Cerebrospinal meningitis—Pittsburgh.....	1
Chicken pox.....	295
Diphtheria.....	150
German measles.....	108
Impetigo contagiosa.....	1
Lethargic encephalitis—Philadelphia.....	1
Measles.....	2,911
Mumps.....	58
Pneumonia.....	71
Poliomyelitis—Columbus township <sup>3</sup> .....	1
Puerperal fever—Philadelphia.....	1
Scabies.....	1
Scarlet fever.....	479
Trachoma:	
Philadelphia.....	1
Sharpsburg.....	1
Tuberculosis.....	114
Typhoid fever.....	35
Whooping cough.....	450

RHODE ISLAND	
Diphtheria.....	4
German measles.....	32
Influenza.....	2
Measles.....	52
Mumps.....	2
Scarlet fever.....	4
Tuberculosis.....	5
Whooping cough.....	3

SOUTH DAKOTA	
Chicken pox.....	8
Diphtheria.....	1
Influenza.....	2
Measles.....	18
Mumps.....	11
Pneumonia.....	1
Scarlet fever.....	63
Smallpox.....	2
Tuberculosis.....	2
Whooping cough.....	58

<sup>3</sup> County not specified.

TENNESSEE		WASHINGTON—continued	
	Cases		Cases
Cerebrospinal meningitis—Nashville.....	1	German measles.....	48
Chicken pox.....	21	Measles.....	90
Diphtheria.....	5	Mumps.....	16
Dysentery.....	4	Poliomyelitis—Lincoln County.....	1
Hookworm disease.....	1	Scarlet fever.....	54
Influenza.....	17	Smallpox.....	31
Malaria.....	24	Tuberculosis.....	9
Measles.....	208	Typhoid fever.....	6
Mumps.....	1	Whooping cough.....	50
Ophthalmia neonatorum.....	1		
Pellagra.....	14	WEST VIRGINIA	
Pneumonia.....	14	Chicken pox.....	37
Scarlet fever.....	7	Diphtheria.....	9
Smallpox.....	23	Influenza.....	7
Trachoma.....	3	Measles.....	457
Tuberculosis.....	41	Poliomyelitis.....	1
Typhoid fever.....	10	Scarlet fever.....	28
Whooping cough.....	30	Smallpox.....	2
		Tuberculosis.....	30
		Typhoid fever.....	5
		Whooping cough.....	42
TEXAS		WISCONSIN	
Chicken pox.....	55	Milwaukee:	
Dengue.....	8	Cerebrospinal meningitis.....	1
Diphtheria.....	12	Chicken pox.....	79
Influenza.....	1	Diphtheria.....	19
Measles.....	14	German measles.....	3
Mumps.....	3	Influenza.....	3
Pellagra.....	2	Measles.....	282
Pneumonia.....	5	Mumps.....	28
Scarlet fever.....	15	Pneumonia.....	22
Smallpox.....	30	Scarlet fever.....	14
Tuberculosis.....	20	Tuberculosis.....	16
Typhoid fever.....	4	Whooping cough.....	61
Typhus fever.....	1	Scattering:	
Whooping cough.....	23	Cerebrospinal meningitis.....	1
		Chicken pox.....	89
UTAH		Diphtheria.....	12
Chicken pox.....	32	German measles.....	86
Diphtheria.....	11	Influenza.....	9
German measles.....	9	Measles.....	1,186
Measles.....	43	Mumps.....	39
Mumps.....	25	Pneumonia.....	30
Pneumonia.....	1	Scarlet fever.....	62
Scarlet fever.....	1	Tuberculosis.....	20
Smallpox.....	1	Whooping cough.....	84
Tuberculosis.....	1		
Typhoid fever.....	2	WYOMING	
Whooping cough.....	107	Chicken pox.....	15
		Diphtheria.....	3
VERMONT		German measles.....	2
Chicken pox.....	10	Measles.....	15
Measles.....	118	Mumps.....	4
Mumps.....	5	Rocky Mountain spotted fever:	
Scarlet fever.....	2	Campbell County.....	2
Whooping cough.....	4	Johnson County.....	1
		Park County.....	4
VIRGINIA		Sheridan County.....	5
Smallpox.....	5	Scarlet fever.....	9
		Smallpox.....	1
WASHINGTON		Whooping cough.....	6
Cerebrospinal meningitis—Spokane.....	3		
Chicken pox.....	91		
Diphtheria.....	17		

## Report for Week Ended June 5, 1926

NORTH DAKOTA		NORTH DAKOTA—continued	
	Cases		Cases
Chicken pox.....	10	Pneumonia.....	1
Diphtheria.....	6	Scarlet fever.....	36
German measles.....	31	Smallpox.....	7
Influenza.....	2	Tuberculosis.....	1
Measles.....	18	Whooping cough.....	29
Mumps.....	6		

## SUMMARY OF MONTHLY REPORTS FROM STATES

The following summary of monthly State reports is published weekly and covers only those States from which reports are received during the current week:

State	Cerebro-spinal meningitis	Diphtheria	Influenza	Malaria	Measles	Pellagra	Polio-myelitis	Scarlet fever	Small pox	Typhoid fever
<i>April, 1926</i>										
Hawaii Territory	9	22	731	-----	32	-----	0	0	0	0
<i>May, 1926</i>										
Arizona	1	9	160	-----	41	-----	0	37	10	27
Connecticut	5	84	40	1	2,293	-----	0	348	0	12
Indiana	2	46	68	-----	3,128	-----	0	484	257	14
Vermont	0	3	0	0	219	-----	1	31	0	0

## Number of Cases of Certain Communicable Diseases Reported for the Month of April, 1926, by State Health Officers

State	Chicken pox	Diphtheria	Measles	Mumps	Scarlet fever	Small pox	Tuberculosis	Typhoid fever	Whooping cough
Alabama	-----	30	904	352	63	175	335	34	133
Arizona	37	8	24	10	61	1	109	7	21
Arkansas	133	5	143	107	27	30	131	12	167
California	1,181	381	1,148	1,256	474	337	795	122	285
Colorado	287	83	211	12	145	4	141	8	351
Connecticut	170	65	2,427	40	392	0	148	4	266
Delaware	12	10	289	1	39	0	114	1	12
District of Columbia	124	62	2,264	-----	102	1	95	2	165
Florida	255	107	239	114	35	407	120	46	144
Georgia	197	37	587	267	33	115	102	16	111
Idaho	63	14	150	118	74	51	7	10	263
Illinois	926	326	4,299	356	1,507	164	1,755	44	870
Indiana	261	122	6,892	17	947	445	240	14	604
Iowa	-----	-----	-----	-----	-----	-----	-----	-----	-----
Kansas	349	66	2,704	179	269	50	180	9	592
Kentucky	-----	-----	-----	-----	-----	-----	-----	-----	-----
Louisiana	71	31	98	70	98	105	166	48	45
Maine	74	11	1,342	207	36	0	38	18	156
Maryland	357	89	2,699	945	207	0	326	30	255
Massachusetts	440	228	3,776	471	1,103	4	773	23	1,376
Michigan	484	303	6,532	200	1,401	28	493	16	311
Minnesota	538	272	2,389	-----	1,434	20	264	14	179
Mississippi	1,000	66	1,942	1,685	37	106	361	69	1,669
Missouri	73	220	3,799	63	1,007	38	144	21	306
Montana	98	8	201	71	175	28	63	0	52
Nebraska	-----	-----	-----	-----	-----	-----	-----	-----	-----
Nevada	-----	-----	-----	-----	-----	-----	-----	-----	-----
New Hampshire	-----	-----	-----	-----	-----	-----	-----	-----	-----
New Jersey	717	259	9,914	-----	800	1	477	28	346
New Mexico	-----	-----	-----	-----	-----	-----	-----	-----	-----
New York	1,194	959	15,052	858	1,792	14	1,702	71	2,086
North Carolina	561	81	1,166	-----	106	152	-----	13	828
North Dakota	45	38	614	131	385	12	14	12	63
Ohio	667	370	11,250	289	1,419	253	663	21	1,452
Oklahoma	100	50	264	32	156	128	98	28	182
Oregon	198	88	332	242	225	99	61	11	198
Pennsylvania	-----	-----	-----	-----	-----	-----	-----	-----	-----
Rhode Island	28	18	802	17	35	0	54	3	87
South Carolina	338	107	139	21	31	106	246	32	454
South Dakota	79	22	249	254	518	29	17	6	38
Tennessee	202	55	1,705	79	165	91	225	25	150
Texas	-----	-----	-----	-----	-----	-----	-----	-----	-----
Utah	-----	-----	-----	-----	-----	-----	-----	-----	-----
Vermont	89	9	107	76	38	0	123	0	189
Virginia	696	72	3,786	-----	342	61	1172	20	702
Washington	301	58	584	255	322	283	194	25	302
West Virginia	167	55	1,656	-----	204	73	78	18	166
Wisconsin	898	162	3,630	828	796	27	193	12	858
Wyoming	55	7	12	17	138	2	2	0	60

<sup>1</sup> Palmaris.

<sup>2</sup> Reports not received at time of going to press.

<sup>3</sup> Reports received weekly.

<sup>4</sup> Reports received annually.

<sup>5</sup> Exclusive of Oklahoma City and Tulsa.

## Case Rates per 1,000 Population (Annual Basis) for the Month of April, 1926

State	Chick- en pox	Diph- theria	Mea- sles	Mumps	Scar- let fever	Small- pox	Tuber- culo- sis	Ty- phoid fever	Whoop- ing cough
Alabama		0.15	4.42	1.72	0.31	0.86	1.64	0.17	0.85
Arizona	1.07	.23	.60	.29	1.76	.03	3.15	.20	.81
Arkansas	.86	.03	.93	.70	.18	.20	1.20	.08	1.69
California	3.48	1.12	3.38	3.70	1.40	.99	2.34	.36	.84
Colorado	3.02	.98	2.48	.14	1.71	.05	1.66	.09	4.13
Connecticut	1.33	.51	13.95	.31	3.06	.00	1.16	.03	2.08
Delaware	.62	.51	14.85	.05	2.00	.00	1.72	.05	.62
District of Columbia	2.06	1.48	64.13		2.44	.02	2.37	.05	3.94
Florida	2.79	1.17	2.61	1.25	.38	4.45	1.31	.50	1.57
Georgia	.78	.15	2.31	1.05	.13	.45	.40	.08	.41
Idaho	1.52	.34	3.63	2.85	1.79	1.23	.17	.46	6.36
Illinois	1.60	.56	7.42	.61	2.60	.28	3.03	.03	1.59
Indiana	1.03	.48	27.19	.07	3.74	1.73	.95	.06	2.38
Iowa <sup>1</sup>									
Kansas	2.33	.44	18.06	1.20	1.80	.33	1.20	.06	3.95
Kentucky <sup>1</sup>									
Louisiana	.46	.20	.60	.45	.63	.67	1.07	.31	.29
Maine	1.15	.17	20.79	3.21	1.33	.60	.59	.28	2.42
Maryland	2.80	.70	20.44	7.40	1.62	.00	2.58	.24	2.60
Massachusetts	1.28	.66	11.00	1.37	3.21	.01	2.25	.07	4.01
Michigan	1.39	.87	18.73	.57	4.02	.08	1.41	.05	1.23
Minnesota	2.52	1.27	11.20		6.72	.09	1.24	.07	.84
Mississippi	6.80	.45	13.20	11.31	.25	.72	2.45	.40	11.34
Missouri	.26	.77	13.29	.22	3.52	.13	.50	.07	1.08
Montana	1.79	.15	3.68	1.30	3.20	.51	1.15	.00	.95
Nebraska <sup>1</sup>									
Nevada <sup>1</sup>									
New Hampshire <sup>1</sup>									
New Jersey	2.44	.88	33.79		2.73	.00	1.63	.10	1.18
New Mexico <sup>1</sup>									
New York	1.29	1.04	16.30	.93	1.94	.02	1.91	.08	2.26
North Carolina	2.44	.35	5.07		.46	.66		.06	3.60
North Dakota	.79	.67	10.77	2.30	6.75	.21	.25	.21	1.11
Ohio	1.26	.70	21.31	.55	2.69	.48	1.26	.04	2.75
Oklahoma <sup>1</sup>	.53	.27	1.41	.17	.83	.68	.52	.15	.97
Oregon	2.81	1.25	4.71	3.43	3.19	1.40	.87	.10	2.81
Pennsylvania <sup>1</sup>									
Rhode Island	.53	.34	15.11	.32	.66	.00	1.02	.06	1.64
South Carolina	2.42	.72	.94	.14	.21	.72	1.67	.22	3.07
South Dakota	1.43	.40	4.51	4.60	9.38	.53	.31	.11	.69
Tennessee	1.01	.27	8.50	.30	.82	.45	1.12	.12	.75
Texas <sup>1</sup>									
Utah <sup>1</sup>									
Vermont	3.07	.31	3.69	2.62	1.31	.00	1.79	.00	6.52
Virginia	3.42	.35	13.61		1.68	.30	1.85	.10	3.45
Washington	2.44	.47	2.30	2.08	2.61	2.29	1.57	.20	2.45
West Virginia	1.25	.41	14.63		1.53	.55	.58	.13	1.24
Wisconsin	3.86	.70	16.89	3.55	3.42	.12	.83	.05	3.69
Wyoming	2.95	.38	.64	.91	7.40	.11	.11	.00	2.22

<sup>1</sup> Pulmonary.<sup>2</sup> Reports not received at time of going to press.<sup>3</sup> Reports received weekly.<sup>4</sup> Reports received annually.<sup>5</sup> Exclusive of Oklahoma City and Tulsa.

# Number of Cases of Certain Communicable Diseases Reported for the Month of March, 1926, by State Health Officers

State	Chicken pox	Diphtheria	Measles	Mumps	Scarlet fever	Smallpox	Tuberculosis	Typhoid fever	Whooping cough
Alabama	296	48	521	241	80	150	434	30	110
Arizona	55	17	10	27	43	1	112	4	6
Arkansas	124	20	116	105	49	36	150	11	142
California	2,071	619	780	1,910	815	745	1,185	41	367
Colorado	287	139	191	20	193	5	191	62	517
Connecticut	294	190	4,670	71	426	0	161	6	503
Delaware	17	12	433	---	42	0	113	1	22
District of Columbia	129	57	1,555	---	92	0	138	7	125
Florida	272	73	198	121	61	782	44	20	85
Georgia	227	34	363	219	52	176	114	8	160
Idaho	55	24	106	149	85	94	14	6	107
Illinois	1,606	356	4,514	533	2,050	107	1,359	44	939
Indiana	874	101	6,948	14	914	441	215	9	476
Iowa <sup>2</sup>	---	---	---	---	---	---	---	---	---
Kansas	395	71	2,269	131	362	65	252	10	648
Kentucky <sup>3</sup>	---	---	---	---	---	---	---	---	---
Louisiana	136	62	30	84	69	213	1155	35	27
Maine	123	13	878	222	117	0	53	8	148
Maryland	438	88	4,337	816	211	0	320	20	277
Massachusetts	738	304	5,490	518	1,194	0	706	20	2,179
Michigan	666	397	8,258	239	1,781	30	475	35	1,176
Minnesota	642	177	1,262	---	1,841	29	279	15	276
Mississippi	936	82	1,434	1,423	32	101	411	66	1,612
Missouri	399	280	2,439	242	1,195	50	127	7	352
Montana	112	16	50	129	251	45	37	5	57
Nebraska	---	20	---	---	254	---	---	2	---
Nevada <sup>4</sup>	---	---	---	---	---	---	---	---	---
New Hampshire <sup>4</sup>	---	---	---	---	---	---	---	---	---
New Jersey	890	312	10,449	---	894	5	575	26	432
New Mexico <sup>2</sup>	---	---	---	---	---	---	---	---	---
New York	1,928	979	16,627	1,110	2,032	7	1,830	168	2,503
North Carolina	924	107	1,094	---	127	137	---	6	632
North Dakota	161	41	117	119	403	17	18	---	41
Ohio	1,054	364	14,861	276	1,984	309	613	33	1,689
Oklahoma <sup>5</sup>	104	65	127	31	193	102	54	14	204
Oregon	235	77	209	172	169	147	55	7	233
Pennsylvania <sup>4</sup>	---	---	---	---	---	---	---	---	---
Rhode Island	21	41	1,634	19	55	0	52	1	85
South Carolina	34	75	71	29	22	131	246	29	514
South Dakota	120	19	134	308	392	43	6	11	25
Tennessee	200	44	1,535	107	116	47	195	14	84
Texas <sup>3</sup>	---	---	---	---	---	---	---	---	---
Utah <sup>1</sup>	---	---	---	---	---	---	---	---	---
Vermont	84	3	105	122	57	0	118	1	178
Virginia	798	96	2,140	---	341	75	1203	25	896
Washington	415	78	272	431	361	424	179	18	217
West Virginia	250	53	1,368	---	158	73	70	26	291
Wisconsin	913	166	2,240	809	709	48	155	19	837
Wyoming	29	6	10	28	77	0	---	0	40

<sup>1</sup> Pulmonary.

<sup>2</sup> Report not received at time of going to press.

<sup>3</sup> Reports received weekly.

<sup>4</sup> Reports received annually.

<sup>5</sup> Exclusive of Oklahoma City and Tulsa.

## Case Rates per 1,000 Population (Annual Basis) for the Month of March, 1926

State	Chicken pox	Diph- theria	Meas- les	Mumps	Scar- let fever	Small- pox	Tuber- culo- sis	Ty- phoid fever	Whoop- ing cough
Alabama.....	1.40	0.23	2.46	1.14	0.38	0.71	2.05	0.14	0.52
Arizona.....	1.54	.48	.28	.75	1.20	.03	3.13	.11	.17
Arkansas.....	.78	.13	.73	.66	.31	.23	1.31	.07	.89
California.....	5.90	1.76	2.22	5.45	2.32	2.12	3.24	.12	1.05
Colorado.....	3.27	1.58	2.18	.23	2.20	.06	2.18	.71	5.89
Connecticut.....	2.22	1.44	35.28	.54	3.22	.00	1.22	.05	3.80
Delaware.....	.85	.60	24.01	.....	2.09	.00	1.65	.05	1.09
District of Columbia.....	2.98	1.32	35.98	.....	2.13	.14	3.19	.16	2.89
Florida.....	2.83	.77	2.09	1.28	.65	8.27	.47	.31	.90
Georgia.....	.90	.13	1.40	.84	.20	.67	.43	.03	.61
Idaho.....	1.29	.56	2.48	3.40	1.99	2.20	1.09	.14	2.50
Illinois.....	2.52	.59	7.54	.89	3.42	.13	2.27	.07	1.57
Indiana.....	1.43	.39	26.53	.05	3.49	1.68	.82	.03	1.82
Iowa <sup>1</sup> .....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Kansas.....	2.55	.46	14.28	.85	2.34	.42	1.63	.06	4.19
Kentucky <sup>2</sup> .....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Louisiana.....	.85	.39	.19	.52	.43	1.32	1.96	.22	.17
Maine.....	1.84	.19	13.17	3.33	1.75	.00	.79	.12	2.22
Maryland.....	3.32	.67	32.88	6.10	1.60	.00	2.43	.15	2.10
Massachusetts.....	2.08	.86	15.47	1.46	3.36	.00	1.99	.06	6.14
Michigan.....	1.85	1.10	22.92	1.66	4.94	.08	1.32	.10	3.26
Minnesota.....	2.91	.80	5.72	.....	8.35	.13	1.27	.07	1.25
Mississippi.....	6.15	.54	9.43	9.36	.21	.66	2.70	.43	10.69
Missouri.....	1.35	.98	8.26	.82	4.05	.17	.43	.02	1.19
Montana.....	1.98	.28	1.05	2.29	4.45	.80	.66	.00	1.01
Nebraska.....	.....	.17	.....	.....	2.19	.....	.....	.02	.....
Nevada <sup>4</sup> .....	.....	.....	.....	.....	.....	.....	.....	.....	.....
New Hampshire <sup>4</sup> .....	.....	.....	.....	.....	.....	.....	.....	.....	.....
New Jersey.....	2.94	1.03	34.46	.....	2.95	.02	1.90	.09	1.42
New Mexico <sup>2</sup> .....	.....	.....	.....	.....	.....	.....	.....	.....	.....
New York.....	2.02	1.03	17.43	1.16	2.13	.01	1.92	.11	2.62
North Carolina.....	3.89	.45	4.61	.....	.53	.58	.....	.03	2.66
North Dakota.....	1.71	.70	1.99	2.02	6.84	.29	.31	.....	.70
Ohio.....	1.93	.67	27.24	.51	3.64	.57	1.12	.06	3.10
Oklahoma <sup>5</sup> .....	.54	.34	.60	.16	1.00	.53	.28	.07	1.05
Oregon.....	3.23	1.06	2.87	2.36	2.32	2.02	.76	.10	3.20
Pennsylvania <sup>1</sup> .....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Rhode Island.....	.38	.75	29.79	.35	1.00	.00	.95	.02	1.55
South Carolina.....	.22	.49	.47	.19	.14	.86	1.61	.19	3.37
South Dakota.....	2.10	.33	2.35	5.40	6.87	.75	.11	.19	.44
Tennessee.....	.97	.21	7.41	.52	.56	.23	.94	.07	.41
Texas <sup>3</sup> .....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Utah <sup>4</sup> .....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Vermont.....	2.81	.10	3.51	4.08	1.00	.00	1.60	.03	5.95
Virginia.....	3.89	.46	10.13	.....	1.62	.36	1.97	.12	4.26
Washington.....	3.26	.61	2.13	3.98	2.83	3.33	1.40	.14	1.70
West Virginia.....	1.81	.33	10.65	.....	1.14	.53	.51	.19	2.11
Wisconsin.....	3.80	.69	9.31	3.36	2.95	.20	.64	.08	3.48
Wyoming.....	1.51	.31	.52	1.45	4.00	.00	.....	.00	2.08

<sup>1</sup> Pulmonary.<sup>2</sup> Report not received at time of going to press.<sup>3</sup> Reports received weekly.<sup>4</sup> Reports received annually.<sup>5</sup> Exclusive of Oklahoma City and Tulsa.

## PLAGUE ERADICATIVE MEASURES IN LOS ANGELES, CALIF.

The following items were taken from the report of plague eradication measures from Los Angeles, Calif.:

Week ended June 5, 1926:

Number of rats trapped.....	317
Number of rats found to be plague infected.....	0
Number of squirrels examined.....	1, 183
Number of squirrels found to be plague infected.....	0
Number of mice trapped.....	266
Number of mice found to be plague infected.....	0

Date of discovery of last plague-infected rodent, Nov. 6, 1925.

Date of last human case, Jan. 15, 1925.

## GENERAL CURRENT SUMMARY AND WEEKLY REPORTS FROM CITIES

*Diphtheria*.—For the week ended May 29, 1926, 36 States reported 1,001 cases of diphtheria. For the week ended May 30, 1925, the same States reported 1,012 cases of this disease. Ninety-nine cities, situated in all parts of the country and having an aggregate population of nearly 29,800,000, reported 707 cases of diphtheria for the week ended May 29, 1926. Last year for the corresponding week they reported 813 cases. The estimated expectancy for these cities was 848 cases. The estimated expectancy is based on the experience of the last nine years, excluding epidemics.

*Measles*.—Thirty-four States reported 15,578 cases of measles for the week ended May 29, 1926, and 4,996 cases of this disease for the week ended May 30, 1925. Ninety-nine cities reported 7,028 cases of measles for the week this year, and 3,243 cases last year.

*Poliomyelitis*.—The health officers of 37 States reported 16 cases of poliomyelitis for the week ended May 29, 1926. The same States reported 15 cases for the week ended May 30, 1925.

*Scarlet fever*.—Scarlet fever was reported for the week as follows: Thirty-six States—this year, 2,882 cases; last year, 2,568 cases; 99 cities—this year, 1,555 cases; last year, 1,479 cases; estimated expectancy, 959 cases.

*Smallpox*.—For the week ended May 29, 1926, 37 States reported 495 cases of smallpox. Last year for the corresponding week they reported 725 cases. Ninety-nine cities reported smallpox for the week as follows: 1926, 109 cases; 1925, 271 cases; estimated expectancy, 121 cases. Three deaths from smallpox were reported by these cities for the week this year—at Los Angeles, Calif.

*Typhoid fever*.—Two hundred and nineteen cases of typhoid fever were reported for the week ended May 29, 1926, by 36 States. For the corresponding week of 1925, the same States reported 366 cases of this disease. Ninety-nine cities reported 56 cases of typhoid fever for the week this year and 85 cases for the corresponding week last year. The estimated expectancy for these cities was 78 cases.

*Influenza and pneumonia*.—Deaths from influenza and pneumonia were reported for the week by 93 cities, with a population of more than 29,000,000, as follows: 1926, 733 deaths; 1925, 722.



*City reports for week ended May 29, 1926*

The "estimated expectancy" given for diphtheria, poliomyelitis, scarlet fever, smallpox, and typhoid fever is the result of an attempt to ascertain from previous occurrence how many cases of the disease under consideration may be expected to occur during a certain week in the absence of epidemics. It is based on reports to the Public Health Service during the past nine years. It is in most instances the median number of cases reported in the corresponding week of the preceding years. When the reports include several epidemics or when for other reasons the median is unsatisfactory, the epidemic periods are excluded and the estimated expectancy is the mean number of cases reported for the week during nonepidemic years.

If reports have not been received for the full nine years, data are used for as many years as possible, but no year earlier than 1917 is included. In obtaining the estimated expectancy the figures are smoothed when necessary to avoid abrupt deviations from the usual trend. For some of the diseases given in the table the available data were not sufficient to make it practicable to compute the estimated expectancy.

Division, State, and city	Population July 1, 1925, estimated	Chicken pox, cases reported	Diphtheria		Influenza		Measles, cases reported	Mumps, cases reported	Pneumonia, deaths reported
			Cases, estimated expectancy	Cases reported	Cases reported	Deaths reported			
NEW ENGLAND									
Maine:									
Portland.....	75,333	0	1	1	0	0	80	1	1
New Hampshire:									
Concord.....	22,546	0	0	0	0	1	0	0	1
Vermont:									
Barre.....	10,008	0	0	0	0	1	0	1	1
Burlington.....	24,089	0	0	0	0	0	16	0	1
Massachusetts:									
Boston.....	779,620	33	51	19	4	1	148	63	16
Fall River.....	128,993	2	3	1	0	0	1	2	1
Springfield.....	142,065	2	3	1	0	0	22	0	0
Worcester.....	190,757	0	4	5	0	0	3	0	4
Rhode Island:									
Pawtucket.....	69,760	1	1	2	0	0	73	0	1
Providence.....	267,918	0	8	4	0	1	46	0	7
Connecticut:									
Bridgeport.....	(1)	1	5	0	0	0	3	0	2
Hartford.....	160,197	4	6	1	0	0	12	0	5
New Haven.....	178,927	10	3	0	0	0	62	5	13
MIDDLE ATLANTIC									
New York:									
Buffalo.....	538,016	20	11	12	0	1	32	1	25
New York.....	5,873,356	117	262	187	31	14	804	92	168
Rochester.....	316,786	13	7	16	0	0	65	1	2
Syracuse.....	182,003	9	6	0	0	0	264	13	5
New Jersey:									
Camden.....	128,642	6	3	2	0	0	25	0	6
Newark.....	452,513	52	14	9	4	0	134	20	8
Trenton.....	132,020	2	3	1	0	0	35	0	3
Pennsylvania:									
Philadelphia.....	1,979,364	61	63	55	-----	2	344	11	50
Pittsburgh.....	631,503	45	19	9	-----	5	202	2	22
Reading.....	112,707	9	3	0	-----	0	25	0	2
EAST NORTH CENTRAL									
Ohio:									
Cincinnati.....	409,333	6	7	5	0	1	229	22	6
Cleveland.....	936,485	-----	19	25	4	0	43	-----	12
Columbus.....	279,836	5	3	9	0	3	92	0	1
Toledo.....	287,380	41	4	4	0	3	333	0	8
Indiana:									
Fort Wayne.....	97,846	4	2	1	0	2	85	0	1
Indianapolis.....	358,819	15	5	2	0	0	28	3	12
South Bend.....	80,091	1	0	1	0	0	41	0	1
Terre Haute.....	71,071	0	0	0	0	0	20	0	1
Illinois:									
Chicago.....	2,995,239	198	90	52	11	3	216	12	53
Peoria.....	81,564	2	1	0	0	0	0	1	2
Springfield.....	63,923	4	0	0	1	0	28	4	2
Michigan:									
Detroit.....	1,245,824	54	39	48	0	2	64	8	35
Flint.....	130,316	14	4	3	0	0	134	0	8
Grand Rapids.....	153,698	3	2	0	0	2	105	0	2

<sup>1</sup> No estimate made.

## City reports for week ended May 29, 1926—Continued

Division, State, and city	Population July 1, 1925, estimated	Chicken pox, cases reported	Diphtheria		Influenza		Measles, cases reported	Mumps, cases reported	Pneumonia, deaths reported
			Cases, estimated expectancy	Cases reported	Cases reported	Deaths reported			
EAST NORTH CENTRAL—continued									
Wisconsin:									
Kenosha.....	50,891	7	1	1	0	0	18	1	1
Madison.....	46,385	3	0	1	0	0	112	0	0
Milwaukee.....	569,192	66	11	12	3	3	312	32	18
Racine.....	67,707	0	0	0	0	0	320	6	2
Superior.....	39,671	0	1	0	0	0	9	0	2
WEST NORTH CENTRAL									
Minnesota:									
Duluth.....	110,502	13	1	0	0	0	104	2	2
Minneapolis.....	425,435	78	14	19	0	1	108	1	13
St. Paul.....	246,001	19	15	5	0	1	350	1	6
Iowa:									
Davenport.....	52,469	5	0	0	0	0	3	0	0
Des Moines.....	141,441	1	2	0	0	0	0	0	0
Sioux City.....	76,411	2	1	0	0	0	0	1	0
Waterloo.....	36,771	5	0	0	0	0	54	1	0
Missouri:									
Kansas City.....	367,481	3	6	1	2	2	94	0	5
St. Joseph.....	78,342	3	1	0	0	1	24	0	0
St. Louis.....	821,543	17	39	57	1	1	608	7	9
North Dakota:									
Fargo.....	26,403	1	0	0	0	0	0	9	0
South Dakota:									
Aberdeen.....	15,036	3	0	0	0	0	18	0	0
Sioux Falls.....	30,127	0	0	0	0	0	8	0	0
Nebraska:									
Lincoln.....	60,941	5	1	2	0	0	2	0	0
Omaha.....	211,768	37	2	6	0	0	94	1	0
Kansas:									
Topeka.....	55,411	33	2	0	0	0	7	0	1
Wichita.....	88,367	3	1	0	0	0	27	0	3
SOUTH ATLANTIC									
Delaware:									
Wilmington.....	122,049	2	1	0	0	0	0	0	1
Maryland:									
Baltimore.....	796,296	92	16	13	5	2	66	167	20
Cumberland.....	33,741	0	0	1	0	0	16	0	0
Frederick.....	12,035	0	0	1	0	0	4	0	0
District of Columbia:									
Washington.....	497,906	21	9	20	0	0	248	0	12
Virginia:									
Lynchburg.....	30,395	7	0	3	0	0	56	0	0
Norfolk.....	(1)	50	1	0	0	0	19	0	3
Richmond.....	186,403	3	1	4	0	1	122	14	1
Roanoke.....	68,208	2	0	0	0	0	42	0	0
West Virginia:									
Charleston.....	49,019	1	0	0	0	0	20	0	0
Wheeling.....	56,208	3	0	0	0	0	140	0	4
North Carolina:									
Raleigh.....	30,371	1	0	0	0	0	4	0	1
Wilmington.....	37,061	2	0	0	0	0	9	0	1
Winston-Salem.....	69,031	13	1	2	0	0	14	10	0
South Carolina:									
Charleston.....	73,125	4	0	1	9	1	8	0	2
Columbia.....	41,225	10	0	0	0	0	0	0	0
Greenville.....	27,311	0	0	0	0	0	1	1	0
Georgia:									
Atlanta.....	(1)	3	1	6	3	1	43	1	6
Brunswick.....	16,809	1	0	0	0	0	4	0	0
Savannah.....	93,134	5	0	0	0	1	2	1	2
Florida:									
Miami.....	69,754	4	0	7	0	0	19	5	2
Tampa.....	94,743	6	1	0	0	0	3	0	2
1 No estimate made.									

1 No estimate made.

## City reports for week ended May 29, 1926—Continued

Division, State, and city	Population July 1, 1925, estimated	Chick- en pox, cases re- ported	Diphtheria		Influenza		Meas- les, cases re- ported	Mumps, cases re- ported	Pneu- monia, deaths re- ported
			Cases, es- timated ex- pectancy	Cases re- ported	Cases re- ported	Deaths re- ported			
EAST SOUTH CENTRAL									
Kentucky:									
Covington.....	58,309	0	1	1	0	0	10	0	0
Louisville.....	305,935	3	3	5	0	0	63	0	14
Tennessee:									
Memphis.....	174,533	16	2	1	0	1	210	0	5
Nashville.....	136,220	3	0	0	0	1	8	0	5
Alabama:									
Birmingham.....	205,670	6	0	0	5	2	157	2	9
Mobile.....	65,955	0	1	0	0	1	0	0	0
Montgomery.....	46,481	1	0	1	0	0	10	2	0
WEST SOUTH CENTRAL									
Arkansas:									
Fort Smith.....	31,643	5	0	0	0	-----	1	1	-----
Little Rock.....	74,216	1	0	0	0	0	20	0	0
Louisiana:									
New Orleans.....	414,493	1	6	7	5	0	3	0	8
Shreveport.....	57,857	2	0	0	0	0	0	4	3
Oklahoma:									
Oklahoma City.....	(1)	0	1	1	6	0	3	0	3
Texas:									
Dallas.....	194,450	25	3	3	0	1	0	0	2
Galveston.....	48,375	0	0	0	0	0	0	0	0
Houston.....	164,954	0	2	3	0	1	0	0	2
San Antonio.....	198,069	0	1	2	0	0	2	0	8
MOUNTAIN									
Montana:									
Billings.....	17,971	7	0	0	0	0	14	0	1
Great Falls.....	29,883	7	1	0	0	0	57	0	1
Helena.....	12,037	0	0	0	0	0	0	0	0
Missoula.....	12,668	3	0	0	0	0	1	0	0
Idaho:									
Boise.....	23,042	2	0	0	0	0	0	2	0
Colorado:									
Denver.....	280,911	37	10	1	-----	1	31	3	4
Pueblo.....	43,787	17	1	3	0	0	33	0	0
New Mexico:									
Albuquerque.....	21,000	5	0	1	0	0	4	6	0
Arizona:									
Phoenix.....	38,669	0	1	0	0	0	1	0	1
Utah:									
Salt Lake City.....	130,948	-----	3	10	0	0	7	-----	4
Nevada:									
Reno.....	12,065	0	0	0	0	0	0	0	0
PACIFIC									
Washington:									
Seattle.....	(1)	42	4	14	0	-----	43	18	-----
Spokane.....	108,897	19	2	4	0	-----	10	0	-----
Tacoma.....	104,455	5	1	1	0	0	8	0	2
Oregon:									
Portland.....	282,383	20	4	5	0	0	67	11	8
California:									
Los Angeles.....	(1)	51	33	28	8	0	8	14	13
Sacramento.....	72,260	3	2	3	0	1	1	11	0
San Francisco.....	557,530	54	18	9	4	2	228	17	3

<sup>1</sup> No estimate made.

## City reports for week ended May 29, 1926—Continued

Division, State, and city	Scarlet fever		Smallpox			Tuber- culosis, deaths reported	Typhoid fever			Whoop- ing cough, cases re- ported	Deaths, all causes
	Cases, esti- mated expect- ancy	Cases re- ported	Cases, esti- mated expect- ancy	Cases re- ported	Deaths re- ported		Cases, esti- mated expect- ancy	Cases re- ported	Deaths re- ported		
NEW ENGLAND											
Maine:											
Portland.....	1	3	0	0	0	0	1	0	0	7	22
New Hampshire:											
Concord.....	1	1	0	0	0	0	0	0	0	0	9
Vermont:											
Barre.....	1	0	0	0	0	1	0	0	0	0	8
Burlington.....	0	0	0	0	0	0	0	0	0	0	5
Massachusetts:											
Boston.....	48	54	0	0	0	22	2	2	0	87	188
Fall River.....	3	4	0	0	0	3	1	0	0	6	42
Springfield.....	5	9	0	0	0	3	0	0	0	5	32
Worcester.....	8	12	0	0	0	4	1	0	0	8	64
Rhode Island:											
Pawtucket.....	1	4	0	0	0	1	0	1	0	9	17
Providence.....	8	1	0	0	0	3	1	0	1	12	69
Connecticut:											
Bridgeport.....	6	16	0	0	0	2	1	0	0	1	20
Hartford.....	4	2	0	0	0	2	0	0	0	4	41
New Haven.....	4	3	0	0	0	2	1	0	0	5	81
MIDDLE ATLANTIC											
New York:											
Buffalo.....	19	15	1	0	0	16	0	1	0	20	154
New York.....	220	221	0	0	0	107	12	5	2	68	1,307
Rochester.....	13	9	0	0	0	2	0	1	0	18	75
Syracuse.....	11	3	0	0	0	1	0	0	0	27	44
New Jersey:											
Camden.....	4	6	0	0	0	2	0	1	0	1	34
Newark.....	16	20	1	0	0	5	0	1	2	32	108
Trenton.....	2	5	0	0	0	10	1	0	0	2	43
Pennsylvania:											
Philadelphia.....	71	104	1	0	0	44	5	2	0	31	461
Pittsburgh.....	25	38	1	2	0	8	1	0	0	84	103
Reading.....	2	4	0	0	0	0	1	0	0	8	34
EAST NORTH CENTRAL											
Ohio:											
Cincinnati.....	11	14	2	0	0	18	0	4	1	24	124
Cleveland.....	19	79	1	0	0	10	1	2	0	11	185
Columbus.....	7	21	2	11	0	4	0	0	0	4	73
Toledo.....	11	12	3	0	0	6	0	1	0	44	71
Indiana:											
Fort Wayne.....	3	6	4	0	0	2	0	0	0	1	26
Indianapolis.....	10	15	9	4	0	12	1	2	1	21	116
South Bend.....	4	3	2	0	0	1	0	0	0	3	15
Terre Haute.....	3	0	1	0	0	0	0	0	0	2	17
Illinois:											
Chicago.....	106	131	3	4	0	56	4	3	0	71	676
Peoria.....	3	2	0	0	0	0	0	0	0	9	23
Springfield.....	1	5	0	0	0	2	0	0	0	11	18
Michigan:											
Detroit.....	68	135	3	0	0	31	3	2	3	46	279
Flint.....	5	28	2	0	0	1	0	0	0	5	33
Grand Rapids.....	6	29	1	0	0	2	0	0	0	7	26
Wisconsin:											
Kenosha.....	1	0	0	0	0	1	0	0	0	3	8
Madison.....	2	3	1	0	0	0	0	0	0	0	6
Milwaukee.....	21	20	5	0	0	5	1	0	0	67	101
Racine.....	4	3	1	0	0	0	0	0	0	18	19
Superior.....	1	5	2	0	0	0	0	0	0	0	10
WEST NORTH CENTRAL											
Minnesota:											
Duluth.....	4	20	2	0	0	1	1	0	0	6	26
Minneapolis.....	28	76	10	0	0	4	1	0	0	1	108
St. Paul.....	20	33	4	0	0	1	1	0	0	36	55

¹ Pulmonary tuberculosis only.

## City reports for week ended May 29, 1926—Continued

Division, State, and city	Scarlet fever		Smallpox			Tuber- cul- osis, deaths re- ported	Typhoid fever			Whoop- ing cough, cases re- ported	Deaths, all causes
	Cases, esti- mated expect- ancy	Cases re- ported	Cases, esti- mated expect- ancy	Cases re- ported	Deaths re- ported		Cases, esti- mated expect- ancy	Cases re- ported	Deaths re- ported		
WEST NORTH CEN- TRAL—continued											
Iowa:											
Davenport.....	0	1	5	1	-----	-----	0	0	-----	1	-----
Des Moines.....	6	7	3	0	-----	-----	0	0	-----	0	-----
Sioux City.....	2	8	1	5	-----	-----	0	0	-----	2	-----
Waterloo.....	2	0	0	0	-----	-----	1	0	-----	10	-----
Missouri:											
Kansas City....	7	15	3	0	0	8	1	0	0	16	107
St. Joseph.....	1	7	0	1	0	1	0	0	0	0	37
St. Louis.....	27	95	3	3	0	2	2	2	0	48	271
North Dakota:											
Fargo.....	0	6	0	3	0	1	0	0	0	0	10
Grand Forks....	0	-----	0	-----	-----	-----	0	-----	-----	-----	-----
South Dakota:											
Aberdeen.....	1	14	0	0	-----	-----	0	0	-----	22	-----
Sioux Falls.....	1	2	0	0	0	0	0	0	0	0	5
Nebraska:											
Lincoln.....	1	2	0	2	0	0	0	0	0	19	12
Omaha.....	4	67	5	10	0	5	1	0	0	0	58
Kansas:											
Topeka.....	2	9	1	0	0	0	0	0	0	9	16
Wichita.....	2	1	3	0	0	1	0	0	0	12	34
SOUTH ATLANTIC											
Delaware:											
Wilmington....	4	4	0	0	0	1	1	0	0	2	30
Maryland:											
Baltimore.....	25	24	1	0	0	19	3	2	0	49	193
Cumberland.....	1	1	0	0	0	0	0	0	0	1	7
Frederick.....	0	0	0	0	0	0	0	0	0	2	1
District of Colum- bia:											
Washington....	17	20	2	0	0	12	2	0	1	34	120
Virginia:											
Lynchburg.....	1	4	0	0	0	1	0	0	0	7	13
Norfolk.....	1	12	0	3	0	1	1	0	0	20	-----
Richmond.....	2	12	1	0	0	6	0	0	0	2	49
Roanoke.....	1	1	0	0	0	0	0	0	0	0	18
West Virginia:											
Charleston.....	1	0	0	0	0	-----	0	0	0	2	-----
Wheeling.....	2	1	0	1	0	0	1	0	0	0	20
North Carolina:											
Raleigh.....	0	1	0	0	0	2	0	0	0	10	22
Wilmington....	0	0	0	0	0	1	1	0	0	7	9
Winston-Salem...	1	1	3	0	0	2	0	0	0	3	25
South Carolina:											
Charleston.....	0	0	1	1	0	2	1	2	0	1	24
Columbia.....	0	0	0	0	0	0	1	4	0	0	-----
Greenville.....	0	0	0	1	0	0	1	0	0	4	10
Georgia:											
Atlanta.....	4	2	5	1	0	3	1	2	1	7	74
Brunswick.....	0	0	0	0	0	1	1	0	0	0	4
Savannah.....	0	0	0	1	0	1	1	0	0	0	24
Florida:											
Miami.....	-----	0	-----	-----	-----	1	-----	0	1	2	32
Tampa.....	1	2	0	7	0	1	0	4	2	3	35
EAST SOUTH CEN- TRAL											
Kentucky:											
Covington.....	1	1	1	1	0	0	0	1	0	0	-----
Louisville.....	4	16	1	0	0	4	1	1	0	2	95
Tennessee:											
Memphis.....	4	12	2	2	0	9	1	0	0	2	69
Nashville.....	2	3	1	0	0	4	1	1	0	6	36
Alabama:											
Birmingham....	1	1	7	8	0	4	2	2	1	28	73
Mobile.....	0	0	1	0	0	2	1	1	0	2	21
Montgomery....	1	0	1	1	0	0	0	0	0	0	4

## City reports for week ended May 29, 1926—Continued

Division, State, and city	Scarlet fever		Smallpox			Tuber- culosis, deaths re- ported	Typhoid fever			Whoop- ing cough, cases re- ported	Deaths, all causes
	Cases, esti- mated expect- ancy	Cases re- ported	Cases, esti- mated expect- ancy	Cases re- ported	Deaths re- ported		Cases, esti- mated expect- ancy	Cases re- ported	Deaths re- ported		
WEST SOUTH CENTRAL											
Arkansas:											
Fort Smith.....	1	1	0	0	—	0	0	—	5	—	
Little Rock.....	0	12	0	1	0	0	1	0	2	—	
Louisiana:											
New Orleans.....	3	8	2	2	0	17	3	0	7	160	
Shreveport.....	0	1	2	0	0	2	0	0	5	29	
Oklahoma:											
Oklahoma City.....	1	2	5	0	0	0	0	0	0	22	
Texas:											
Dallas.....	2	2	2	9	0	4	1	2	5	43	
Galveston.....	0	0	0	2	0	0	1	0	0	11	
Houston.....	1	2	0	9	0	5	0	0	9	48	
San Antonio.....	0	1	0	0	0	10	0	1	0	64	
MOUNTAIN											
Montana:											
Billings.....	0	1	0	0	0	0	0	0	0	9	
Great Falls.....	2	0	2	0	0	1	0	0	4	6	
Helena.....	0	0	0	0	0	0	0	0	0	3	
Missoula.....	0	0	0	0	0	0	0	0	0	4	
Idaho:											
Boise.....	0	0	0	3	0	0	0	0	0	0	
Colorado:											
Denver.....	10	7	1	0	6	7	1	0	34	65	
Pueblo.....	1	0	1	0	0	0	1	0	0	13	
New Mexico:											
Albuquerque.....	0	4	0	0	0	6	0	0	13	19	
Arizona:											
Phoenix.....	0	0	0	1	0	6	0	0	0	13	
Utah:											
Salt Lake City.....	2	3	1	1	0	2	1	0	—	30	
Nevada:											
Reno.....	0	0	0	0	0	0	0	0	0	3	
PACIFIC											
Washington:											
Seattle.....	9	6	3	0	—	0	1	—	3	—	
Spokane.....	4	12	4	0	—	1	0	—	1	—	
Tacoma.....	2	5	2	5	0	1	0	0	0	23	
Oregon:											
Portland.....	6	28	8	10	0	3	1	0	2	57	
California:											
Los Angeles.....	17	24	4	6	3	21	2	0	13	263	
Sacramento.....	1	1	1	1	0	1	0	0	0	22	
San Francisco.....	14	19	1	0	0	7	0	0	6	146	

Division, State, and city	Cerebrospinal meningitis		Lethargic encephalitis		Pellagra		Poliomyelitis (infantile paralysis)			
	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases, estimated expectancy	Cases	Deaths	
<b>NEW ENGLAND</b>										
Vermont:										
Bangor.....	0	0	0	0	0	0	0	1	0	0
Massachusetts:										
Boston.....	0	0	1	0	1	0	0	1	0	0
Fall River.....	0	0	0	1	0	0	0	0	0	0
Connecticut:										
Hartford.....	0	1	0	0	0	0	0	0	0	0
New Haven.....	0	0	0	1	0	0	0	0	0	0

## City reports for week ended May 29, 1926—Continued

Division, State, and city	Cerebrospinal meningitis		Lethargic encephalitis		Pellagra		Poliomyelitis (infantile paralysis)		
	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases, estimated expectancy	Cases	Deaths
MIDDLE ATLANTIC									
New York:									
Buffalo.....	1	0	0	0	0	0	0	0	0
New York.....	5	2	1	4	0	1	1	2	1
Pennsylvania:									
Philadelphia.....	0	0	0	1	0	0	0	0	0
EAST NORTH CENTRAL									
Ohio:									
Cleveland.....	0	1	0	0	0	0	0	0	0
Toledo.....	1	0	0	0	0	0	0	0	0
Illinois:									
Chicago.....	1	0	1	0	0	0	0	0	0
Michigan:									
Detroit.....	0	0	2	0	0	0	0	0	0
WEST NORTH CENTRAL									
Minnesota:									
Minneapolis.....	1	0	0	0	0	0	0	0	0
North Dakota:									
Fargo.....	0	0	0	1	0	0	0	0	0
SOUTH ATLANTIC									
District of Columbia:									
Washington.....	0	0	0	1	0	0	0	0	0
Virginia:									
Norfolk.....	1	0	0	0	0	0	0	0	0
Roanoke.....	0	0	0	0	0	1	0	0	0
North Carolina:									
Raleigh.....	0	0	0	0	0	1	0	0	0
Winston-Salem.....	0	0	0	0	2	0	0	0	0
South Carolina:									
Charleston <sup>1</sup> .....	0	0	0	0	2	2	0	0	0
Georgia:									
Atlanta.....	0	0	0	1	0	0	0	0	0
Brunswick.....	0	0	0	0	0	1	0	0	0
Florida:									
Tampa.....	0	0	0	0	1	0	0	0	0
EAST SOUTH CENTRAL									
Tennessee:									
Memphis.....	0	0	0	0	0	1	0	0	0
Alabama:									
Mobile.....	0	0	0	0	0	1	0	0	0
WEST SOUTH CENTRAL									
Louisiana:									
New Orleans.....	0	0	0	0	2	1	0	0	0
Shreveport.....	0	0	0	0	0	2	0	0	0
Texas:									
Dallas.....	0	0	0	0	1	0	0	0	0
Galveston.....	0	0	0	0	0	1	0	0	0
Houston.....	0	0	0	0	0	1	0	0	0
San Antonio.....	0	0	0	0	0	1	0	0	0
PACIFIC									
Washington:									
Seattle.....	1	0	0	0	0	0	0	0	0
Spokane.....	1	0	0	0	0	0	0	0	0
Oregon:									
Portland.....	0	0	0	1	0	0	0	0	0
California:									
Los Angeles.....	0	0	1	1	2	1	0	3	0
San Francisco.....	1	1	1	0	0	0	0	0	0

<sup>1</sup> Dengue, 1 case at Charleston, S. C.

The following table gives the rates per 100,000 population for 103 cities for the five-week period ended May 29, 1926, compared with those for a like period ended May 30, 1925. The population figures used in computing the rates are approximate estimates as of July 1, 1925 and 1926, respectively, authoritative figures for many of the cities not being available. The 103 cities reporting cases had an estimated aggregate population of nearly 30,000,000 in 1925 and nearly 30,500,000 in 1926. The 96 cities reporting deaths had more than 29,250,000 estimated population in 1925 and more than 29,750,000 in 1926. The number of cities included in each group and the estimated aggregate populations are shown in a separate table below.

*Summary of weekly reports from cities, April 25 to May 29, 1926—Annual rates per 100,000 population—Compared with rates for the corresponding period of 1925<sup>1</sup>*

## DIPHTHERIA CASE RATES

	Week ended									
	May 2, 1925	May 1, 1926	May 9, 1925	May 8, 1926	May 16, 1925	May 15, 1926	May 23, 1925	May 22, 1926	May 30, 1925	May 29, 1926
103 cities.....	152	110	152	115	158	122	148	119	144	124
New England.....	122	83	105	100	140	87	122	78	110	80
Middle Atlantic.....	212	114	211	125	237	135	202	138	270	145
East North Central.....	102	97	106	89	102	96	101	117	106	108
West North Central.....	195	200	269	195	205	228	243	167	187	199
South Atlantic.....	98	68	98	75	81	77	83	71	72	66
East South Central.....	37	73	11	62	32	52	37	36	11	42
West South Central.....	66	50	62	60	53	40	47	62	66	66
Mountain.....	111	118	102	146	148	182	129	127	130	127
Pacific.....	196	154	117	178	132	175	157	164	160	159

## MEASLES CASE RATES

	559	1,706	603	1,712	690	1,557	570	1,430	569	1,230
103 cities.....										
New England.....	868	1,629	949	1,714	1,145	1,198	1,014	1,075	836	1,004
Middle Atlantic.....	731	1,417	793	1,429	765	1,198	615	1,133	701	950
East North Central.....	706	1,460	830	1,454	795	1,371	588	1,372	539	1,252
West North Central.....	76	2,985	190	4,438	70	4,451	235	3,838	137	2,857
South Atlantic.....	285	2,528	227	1,642	311	1,433	309	1,654	242	1,533
East South Central.....	15	2,885	315	2,248	152	3,461	310	2,060	200	2,370
West South Central.....	54	169	31	125	13	155	22	142	13	112
Mountain.....	518	865	176	683	55	1,393	170	1,384	240	1,362
Pacific.....	155	669	91	661	170	679	124	693	157	803

## SCARLET FEVER CASE RATES

	297	292	311	294	335	326	297	311	267	272
103 cities.....										
New England.....	415	281	400	232	345	312	338	268	204	258
Middle Atlantic.....	322	221	318	217	330	249	274	276	270	212
East North Central.....	302	280	341	310	368	356	368	341	321	336
West North Central.....	502	867	560	933	705	983	639	813	614	736
South Atlantic.....	125	218	100	177	156	222	138	195	115	163
East South Central.....	242	371	242	187	299	202	226	176	108	171
West South Central.....	106	144	54	176	70	155	44	172	62	116
Mountain.....	324	218	268	137	342	246	314	173	398	100
Pacific.....	119	205	144	208	157	259	155	294	133	181

<sup>1</sup> The figures given in this table are rates per 100,000 population, annual basis, and not the number of cases reported. Populations used are estimated as of July 1, 1925 and 1926, respectively.

<sup>2</sup> Spokane, Wash., not included.

<sup>3</sup> Grand Forks, N. Dak., not included.

<sup>4</sup> Superior, Wis., and Tacoma, Wash., not included.

<sup>5</sup> Kansas City, Mo., and Grand Forks, N. Dak., not included.

<sup>6</sup> Charleston, W. Va., not included.

<sup>7</sup> St. Paul, Minn., Kansas City, Mo., Grand Forks, N. Dak., and Charleston, W. Va., not included.

<sup>8</sup> Superior, Wis., not included.

<sup>9</sup> St. Paul, Minn., Kansas City, Mo., and Grand Forks, N. Dak., not included.

<sup>10</sup> Tacoma, Wash., not included.



Summary of weekly reports from cities, April 25 to May 29, 1926—Annual rates per 100,000 population—Compared with rates for the corresponding period of 1925—Continued

## SMALLPOX CASE RATES

	Week ended									
	May 2, 1925	May 1, 1925	May 9, 1925	May 8, 1925	May 16, 1925	May 15, 1925	May 23, 1925	May 22, 1925	May 30, 1925	May 29, 1925
103 cities.....	48	26	45	26	44	26	58	19	47	19
New England.....	0	0	2	0	0	0	0	0	0	0
Middle Atlantic.....	8	0	6	0	7	0	2	0	2	1
East North Central.....	29	19	41	22	53	20	66	18	54	13
West North Central.....	72	32	58	58	76	42	66	33	68	57
South Atlantic.....	60	28	42	30	35	39	61	24	10	29
East South Central.....	399	99	347	73	173	119	404	62	389	62
West South Central.....	31	146	26	159	35	116	123	95	53	99
Mountain.....	9	36	46	36	28	55	28	18	55	36
Pacific.....	196	102	167	57	181	67	177	51	100	32

## TYPHOID FEVER CASE RATES

	17	9	13	8	13	8	18	11	15	10
103 cities.....	17	9	13	8	13	8	18	11	15	10
New England.....	10	5	5	9	12	0	24	9	17	7
Middle Atlantic.....	22	6	13	7	10	10	19	7	9	5
East North Central.....	4	4	8	4	8	5	5	5	7	5
West North Central.....	12	6	2	4	0	12	4	5	10	5
South Atlantic.....	27	19	27	13	25	4	36	32	39	27
East South Central.....	42	21	42	16	58	0	68	10	47	31
West South Central.....	43	17	44	17	75	43	62	26	62	13
Mountain.....	0	18	6	0	0	9	18	9	9	0
Pacific.....	17	27	19	11	103	8	6	19	8	11

## INFLUENZA DEATH RATES

	21	33	14	25	14	16	14	15	12	11
96 cities.....	21	33	14	25	14	16	14	15	12	11
New England.....	19	35	10	14	7	5	5	12	7	9
Middle Atlantic.....	14	27	10	22	12	17	11	16	9	11
East North Central.....	21	46	15	20	10	18	11	18	13	11
West North Central.....	30	17	11	13	11	17	17	15	17	13
South Atlantic.....	25	28	19	19	10	17	6	11	12	11
East South Central.....	47	99	47	99	74	31	79	36	37	26
West South Central.....	29	28	15	47	19	28	19	24	29	9
Mountain.....	46	9	78	18	55	18	18	0	9	9
Pacific.....	11	11	15	4	10	12	4	22	4	11

## PNEUMONIA DEATH RATES

96 cities-----	160	177	145	163	<sup>10</sup> 123	<sup>11</sup> 150	123	<sup>11</sup> 141	<sup>6</sup> 119	<sup>12</sup> 120
New England-----	144	210	156	170	129	165	110	144	110	123
Middle Atlantic-----	206	219	184	174	143	165	143	173	145	145
East North Central-----	138	152	123	178	118	147	116	133	<sup>111</sup> 106	
West North Central-----	70	106	74	121	55	<sup>11</sup> 79	76	<sup>11</sup> 88	<sup>57</sup> 13	<sup>12</sup> 81
South Atlantic-----	180	177	148	169	129	182	125	148	<sup>6</sup> 147	<sup>6</sup> 111
East South Central-----	179	233	147	223	152	182	126	171	158	171
West South Central-----	121	161	131	118	106	137	73	90	73	109
Mountain-----	120	118	120	82	157	91	166	82	74	91
Pacific-----	113	75	109	78	<sup>10</sup> 75	92	120	53	73	64

<sup>1</sup> Spokane, Wash., not included.

<sup>2</sup> Grand Forks, N. Dak., not included.

<sup>3</sup> Superior, Wis., and Tacoma, Wash., not included.

<sup>4</sup> Kansas City, Mo., and Grand Forks, N. Dak., not included.

<sup>5</sup> Charleston, W. Va., not included.

<sup>6</sup> St. Paul, Minn., Kansas City, Mo., Grand Forks, N. Dak., and Charleston, W. Va., not included.

<sup>7</sup> Superior, Wis., not included.

<sup>8</sup> St. Paul, Minn., Kansas City, Mo., and Grand Forks, N. Dak., not included.

<sup>9</sup> Tacoma, Wash., not included.

<sup>10</sup> Kansas City, Mo., not included.

<sup>11</sup> St. Paul, Minn., Kansas City, Mo., and Charleston, W. Va., not included.

<sup>12</sup> St. Paul, Minn., and Kansas City, Mo., not included.

*Number of cities included in summary of weekly reports, and aggregate population of cities in each group, approximated as of July 1, 1925 and 1926, respectively*

Group of cities	Number of cities reporting cases	Number of cities reporting deaths	Aggregate population of cities reporting cases		Aggregate population of cities reporting deaths	
			1925	1926	1925	1926
Total.....	103	96	29,944,996	30,473,129	29,251,658	29,764,201
New England.....	12	12	2,176,124	2,206,124	2,176,124	2,206,124
Middle Atlantic.....	10	10	10,346,970	10,476,970	10,346,970	10,476,970
East North Central.....	16	16	7,481,656	7,655,436	7,481,656	7,655,436
West North Central.....	14	11	2,594,962	2,634,662	2,461,380	2,499,036
South Atlantic.....	21	21	2,716,070	2,776,070	2,716,070	2,776,070
East South Central.....	7	7	993,103	1,004,953	993,103	1,004,953
West South Central.....	8	6	1,184,067	1,212,057	1,076,198	1,103,695
Mountain.....	9	9	563,912	572,773	563,912	572,773
Pacific.....	6	4	1,838,142	1,934,084	1,434,245	1,469,144

## FOREIGN AND INSULAR

### CHOLERA ON VESSEL

*Ship "Selandia" from Bangkok, Siam, for Copenhagen, Denmark.*—On April 15, 1926, a sick seaman was landed at Singapore, Straits Settlements, from the motor ship *Selandia* from Bangkok, for Copenhagen, via Penang, Singapore, and Colombo. The case of sickness was recognized later as cholera. The *Selandia* had no ship's doctor on board and carried no disinfecting apparatus. The vessel was admitted at Suez, Egypt, after medical visit.

### THE FAR EAST

*Report for week ended May 22, 1926.*—The following report for the week ended May 22, 1926, was transmitted by the Far Eastern Bureau of the Health Section of the League of Nations' Secretariat, located at Singapore, to the headquarters at Geneva:

Maritime towns	Plague		Cholera		Small-pox		Maritime towns	Plague		Cholera		Small-pox	
	Cases	Deaths	Cases	Deaths	Cases	Deaths		Cases	Deaths	Cases	Deaths	Cases	Deaths
Egypt							Philippine Islands						
Suez.....	1	1	0	0	0	0	Manila.....	0	0	1	1	0	0
Iraq							Hongkong.....	0	0	0	0	7	4
Basra.....	0	0	0	0	3	3	China:						
British India							Shanghai.....	0	0	0	0	1	1
Calcutt. ....	0		58	13	10		Amoy.....	10	0	0	0	2	0
Bombay.....	5		0	32	24		Sarawak.....						
Madras.....	0		0	3	3		Kuching.....	0	0	0	0	2	0
Karachi.....	1		0	21	4		Japan						
Siam							Osaka.....	0	0	0	0	1	0
Bangkok.....	0	0	302	192	6	3	Kwantung:						
French Indo-China							Dairen.....	0	0	0	0	7	1
Saigon and Cholon	0	0	17	17	0	0	Port Arthur.....	0	0	0	0	3	0
Haiphong.....	0	0	7	5	0	0							

Telegraphic reports from the following maritime towns indicated that no case of plague, cholera, or smallpox was reported during the week:

#### ASIA

*British India.*—Chittagong, Cochin, Tuticorin, Vizagapatam.

*Ceylon.*—Colombo.

*Federated Malay States.*—Port Swettenham.

*Straits Settlements.*—Penang, Singapore.

*Dutch East Indies*.—Batavia, Surabaya, Samarang, Cheribon, Belawan Deli, Palembang, Sabang, Makassar, Menado, Banjarmasin, Balikpapan, Tarakan.

*British North Borneo*.—Sandakan.

*Portuguese Timor*.—Dilly.

*Philippine Islands*.—Manila, Iloilo, Jolo, Cebu, Zamboanga.

*French Indo-China*.—Turane.

*Formosa*.—Koolung.

*Japan*.—Nagasaki, Yokohama, Simonoseki, Moji, Kobe, Niigata, Tsuruga, Hakodate.

*Korea*.—Chemulpo, Fusan.

*Manchuria*.—Antung, Mukden, Changchun, Harbin.

*U. S. S. R.*—Vladivostok.

#### AUSTRALASIA AND OCEANIA

*Australia*.—Adelaide, Melbourne, Sydney, Brisbane, Rockhampton, Townsville, Port Darwin, Broome, Fremantle, Carnarvon, Thursday Island.

*New Guinea*.—Port Moresby.

*New Zealand*.—Auckland, Wellington, Christchurch, Invercargill, Dunedin.

*New Caledonia*.—Noumea.

*Hawaii*.—Honolulu.

#### AFRICA

*Egypt*.—Alexandria, Port Said.

*Anglo-Egyptian Sudan*.—Port Sudan.

*Eritrea*.—Massaua.

*French Somaliland*.—Jibuti.

*British Somaliland*.—Berbera.

*Italian Somaliland*.—Mogadiscio.

*Kenya*.—Mombasa.

*Tanganyika*.—Dar-es-Salaam.

*Zanzibar*.—Zanzibar.

*Seychelles*.—Victoria.

*Mauritius*.—Port Louis.

*Portuguese East Africa*.—Mozambique, Lourenço Marques, Beira.

*Union of South Africa*.—Durban, East London, Port Elizabeth, Cape Town.

Reports had not been received in time for distribution from:

*British India*.—Rangoon, Negapatam.

*Dutch East Indies*.—Padang, Pontianak.

*Madagascar*.—Tamatave, Majunga.

#### AZORES

*Smallpox (alastrim)*.—Under date of April 26, 1926, smallpox (alastrim) was reported still present in the Island of Fayal, Azores, with a few cases in the town of Horta and some prevalence in country districts.

#### BRAZIL

*Disease prevalence—Mortality—January–March, 1926—Porto Alegre*.—Information received for the three months ended March 31, 1926, for the city of Porto Alegre, Brazil, shows continued prevalence of typhoid fever, with 20 deaths. There were reported 210 deaths

from tuberculosis. The infantile death rate was stated to have been high. The total number of deaths reported was 908 (population, estimated, 242,000). The chief causes of death were stated to have been tuberculosis and diseases of the digestive system.

*Trachoma.*—By decree of March 19, 1926, trachoma was made notifiable.

*Sanitary improvements.*—The construction of new municipal water-works and sewers was stated to be under consideration, together with other sanitary improvements.

*Mortality—Smallpox—Manaos—January 1–March 31, 1926.*—During the three months ended March 31, 1926, 639 deaths from all causes were reported in the city of Manaos, Brazil. Deaths from smallpox were reported as follows: January, 27 deaths; February, 76 deaths; March, 42 deaths; total, 145.

*Other diseases.*—During the same period, 21 deaths from bronchial affections were reported, 100 from malaria, 93 from intestinal disorders, and 53 from tuberculosis. Population, estimated, 69,337.

## EGYPT

*Plague—April 30–May 6, 1926—Summary.*—During the week ended May 6, 1926, three cases of plague, occurring in three districts, were reported in Egypt, making a total from January 1, 1926, of 21 cases as compared with 28 cases occurring during the corresponding period of the year 1925.

## ESTHONIA

*Communicable diseases—February, 1926.*—During the month of February, 1926, communicable diseases were reported in the Republic of Esthonia as follows:

Disease	Cases	Disease	Cases
Cerebrospinal meningitis.....	1	Tuberculosis.....	141
Diphtheria.....	55	Typhoid fever.....	33
Measles.....	11	Typhus fever.....	8
Scarlet fever.....	195		

Population, census, 1922, 1,107,059.

## GERMANY

*National health week—Stuttgart—April 18–25.*—At the inauguration of the National Health Week at Stuttgart, Germany, April 18, 1926, tuberculosis was stated to be the infectious disease most frequent in Germany, with an average of about 90,000 deaths yearly and at least 1,000,000 active cases present.

## GREAT BRITAIN

*Anthrax from shaving brush—Manchester—March, 1926.*—Toward the end of March, 1926, a case of anthrax was reported at Manchester, England, the infection being attributed to an infected shaving brush purchased from a firm in Glasgow who obtained their supply from a firm in Czechoslovakia. The brush was labeled "guaranteed free from anthrax." It was found that a large quantity of these brushes had been received by the Glasgow firm and generally distributed. Examination showed the brush in question to be heavily infected with anthrax. Other brushes from the same supply have been examined, but no other infected brush has been found.

*Epidemic measles—Glasgow—Four-week period ended April 24, 1926.*—During the four weeks ended April 24, 1926, 771 cases of measles with 75 deaths were reported at Glasgow, Scotland.<sup>1</sup>

*Respiratory diseases.*—Prevalence of acute primary and influenzal pneumonia was reported, with 347 deaths from pneumonia, 211 from influenza, and 86 from pulmonary tuberculosis.

## GUADELOUPE (WEST INDIES)

*Communicable diseases—May, 1926.*—During the month of May, 1926, 27 cases of dysentery, 32 cases of malaria, 20 cases of "pian," and 1 case of smallpox (alastrim) were reported for the Island of Guadeloupe, West Indies. Chicken pox was reported present with a few cases.

*Unidentified disease—Pointe à Pitre.*—An unidentified disease accompanied by fever was reported present at Pointe à Pitre, Guadeloupe, during the week ended April 24 and the month of May, 1926.

## LATVIA

*Communicable diseases—February, 1926.*—Communicable diseases were reported in the Republic of Latvia during the month of February, 1926, as follows:

Disease	Cases	Disease	Cases
Diphtheria .....	55	Polioomyelitis .....	1
Erysipelas .....	16	Scarlet fever .....	295
Leprosy .....	2	Typhoid fever .....	33
Measles .....	273	Typhus fever .....	18
Mumps .....	60	Whooping cough .....	48
Paratyphus fever .....	1		

Population, 1,850,000.

## MADAGASCAR

*Plague—March 16–31, 1926.*—During the period March 16 to 31, 1926, there were reported in Madagascar 75 cases of plague with 73 deaths. Of these, 31 cases with 29 deaths were bubonic, 25 cases with 25 deaths pneumonic, and 19 cases with 19 deaths septicemic in type.

<sup>1</sup> Public Health Reports, Apr. 2, 1926, page 639, and May 7, 1926, page 910.

## MEXICO

*Anthrax among cattle, Vera Cruz—Hoof-and-mouth disease, Tabasco, Mexico.*—Under date of June 3, 1926, cases of anthrax were reported among cattle in the vicinity of the port of Vera Cruz. On the same date hoof-and-mouth disease was reported in the district of Tabasco.

## SALVADOR

*Mortality, general—Mortality from communicable diseases—Salvador—October 1, 1925—March 31, 1926.*—Deaths from communicable diseases and general mortality have been reported for the periods October 1 to December 31, 1925, and January 1 to March 31, 1926, for the Republic of Salvador, as follows: *October 1—December 31, 1925*—Cholera nostras or gastroenteritis, 148 deaths; measles, 149; tuberculosis, 140; typhoid fever, 2. *January 1—March 31, 1926*—Cholera nostras or gastroenteritis, 182 deaths; measles, 135; tuberculosis, 118; typhoid fever, 8. Population of Republic of Salvador, 1,500,000.

*Malarial and other fevers.*—During both periods named malarial and other tropical fevers were stated to be the prevailing diseases in Salvador.

## UNION OF SOUTH AFRICA

*Plague—April 18–24, 1926.*—During the week ended April 24, 1926, one fatal case of plague was reported in the Union of South Africa. The case occurred in the Cape Province and in Cradock District.

*Typhus fever.*—A case of typhus fever was reported during the same period at Durban, Natal, and outbreaks of the disease were reported at other localities in the Union.

## VIRGIN ISLANDS

*Communicable diseases—April, 1926.*—During the month of April, 1926, communicable diseases were reported in the Virgin Islands of the United States as follows:

Island and disease	Cases	Remarks
St. Thomas and St. John:		
Chaneroid.....	2	
Gonorrhea.....	8	
Malaria.....	2	Malignant tertian.
Syphilis.....	5	Secondary, 4; congenital, 1.
St. Croix:		
Dysentery.....	2	Enteric.
Filariasis.....	2	Bancrofti.
Syphilis.....	1	Secondary.
Tuberculosis.....	1	Chronic pulmonary.

# CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER

The reports contained in the following tables must not be considered as complete or final as regards either the lists of countries included or the figures for the particular countries for which reports are given.

## Reports Received During Week Ended June 18, 1926<sup>1</sup>

### CHOLERA

Place	Date	Cases	Deaths	Remarks
India.....				Apr. 11-17, 1926: Cases, 4,154; deaths, 2,709.
Indo-China:				
Saigon.....	Apr. 5-May 1.....	90	73	The statistics cover Saigon and Cholon.
Philippine Islands:				
Manila.....	Apr. 25-May 1.....	1	1	
Mindoro Province.....	Jan. 1-Feb. 13.....	64	55	
Siam:				
Bangkok.....	Apr. 23-29.....	107	59	
On vessel:				
Ship Selandia.....				Apr. 15, 1926: Case landed at Singapore, Straits Settlements. Vessel from Bangkok, Siam; via Penang, Singapore, and Colombo, for Copenhagen. Received at Suez, Egypt, after medical visit.

### PLAGUE

Egypt.....				Apr. 30-May 6, 1926: Cases, 3. Total, Jan. 1-May 6, 1926: Cases, 21; corresponding period year 1925, cases, 28.
India.....				Apr. 11-17, 1926: Cases, 10,232; deaths, 8,366.
Bombay.....	Apr. 11-24.....	7	6	
Karachi.....	May 2-8.....	1	1	
Indo-China:				
Saigon.....	Apr. 5-11.....	1		
Java:				
Batavia.....	Apr. 10-23.....	42	41	
Madagascar:				
Moramanga Province.....	Mar. 16-31.....	5	5	Mar. 16-31, 1926: Cases, 75; deaths, 73. Bubonic and septicemic.
Tananarive Province.....				Mar. 16-31, 1926: Cases, 70; deaths, 68. Bubonic, pneumonic, septicemic.
Tananarive Town.....	Mar. 16-31.....	8	7	
Other places.....	.....do.....	62	61	
Siam:				
Bangkok.....	Apr. 23-29.....	2		
Union of South Africa:				
Cape Province—				
Cradock District.....	Apr. 18-24.....	1	1	

### SMALLPOX

Algeria:				
Algiers.....	May 1-10.....	3		
Arabia:				
Aden.....	May 9-15.....	1		From interior of country.
Azores:				
Fayal.....				Apr. 26, 1926: Present in country districts. A few cases.
Horta.....	Apr. 28.....			
Brazil:				
Manaos.....				
Para.....	May 9-15.....	3	3	Jan. 1-Mar. 31, 1926: Deaths, 145.
Canada:				
Kingston.....	May 9-15.....	1		
Ottawa.....	May 24-29.....	1		
China:				
Antung.....	May 3-16.....	7		
Foochow.....	Apr. 25-May 1.....			Present.
Hongkong.....	Apr. 18-24.....	2	4	
Nanking.....	Apr. 25-May 8.....			Provalent.
Swatow.....	May 2-8.....			Sporadic.
Tientsin.....	May 2-8.....	1		

<sup>1</sup> From medical officers of the Public Health Service, American consuls, and other sources.



# **CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued**

## **Reports Received During Week Ended June 18, 1926—Continued**

### **SMALLPOX—Continued**

Place	Date	Cases	Deaths	Remarks
Chosen:				
Chinampo.....	Apr. 1-30.....	1	—	
Seishin.....	.....do.....	3	1	
Seoul.....	.....do.....	1	—	
Egypt:				
Alexandria.....	Apr. 16-22.....	7	1	
France:				
Saint Etienne.....	Apr. 17-30.....	1	1	
Great Britain:				
England and Wales.....				May 9-15, 1926; Cases, 165.
Newcastle-on-Tyne.....	May 16-22.....	2	—	
Guadeloupe (West Indies).....				May, 1926: One case (Alastrim).
India.....				Apr. 11-17, 1926. Cases, 7,561; 1,695.
Bombay.....	Apr. 11-24.....	53	31	
Karachi.....	May 2-8.....	21	1	
Madras.....	May 2-8.....	4	1	
Iraq:				
Bagdad.....	Apr. 4-May 1.....	3	1	
Basra.....	Mar. 26-May 1.....	12	9	
Japan:				
Kobe.....	Apr. 25-May 1.....	1	—	
Yokohama.....	Apr. 18-24.....	2	1	
Mexico:				
Guadaluajara.....	May 25-31.....	—	2	
San Luis Potosi.....	May 23-29.....	—	4	
Palestine:				
Jerusalem.....	Feb. 1-28.....	1	—	
Portugal:				
Lisbon.....	Apr. 18-May 15.....	16	—	
Oporto.....	May 9-15.....	1	—	
Spain:				
Valencia.....	May 16-22.....	1	—	
Switzerland:				
Lucerne.....		—	—	Mar. 1-31, 1926: Canton, 1 case.

### **TYPHUS FEVER**

Chile:				
Antofagasta.....	May 2-15.....	4	—	
China:				
Antung.....	Apr. 13-May 16.....	23	—	
Palestine:				
Haifa District.....	May 4-10.....	1	—	
Union of South Africa.....				Apr. 18-24, 1926; Outbreaks at several localities.
Natal—				
Durban.....	Apr. 18-24.....	1	—	

## **Reports Received from December 26, 1925, to June 11, 1926<sup>1</sup>**

### **CHOLERA**

Place	Date	Cases	Deaths	Remarks
Chosen.....	October-November, 1925.....	12	5	
French Settlements in India.....	Dec. 1-31.....	880	712	
Do.....	Jan. 1-Mar. 6.....	435	349	
India.....				
Calcutta.....	Nov. 1-28.....	101	89	Oct. 18, 1925-Jan. 2, 1926: Cases, 21,316; deaths, 12,371 Jan. 3-Mar. 13, 1926: Cases, 31,105; deaths, 17,859. Mar. 21-Apr. 10, 1926: Cases, 18,382; deaths, 13,326.
Do.....	Dec. 6-26.....	—	54	
Do.....	Dec. 27-Jan. 16.....	—	41	
Do.....	Jan. 24-Apr. 3.....	464	417	
Madras.....	Nov. 15-Jan. 2.....	174	70	
Do.....	Jan. 8-Apr. 17.....	146	90	
Rangoon.....	Nov. 8-Dec. 3.....	4	4	
Do.....	Jan. 24-Apr. 17.....	23	20	

<sup>1</sup> From medical officers of the Public Health Service, American consuls, and other sources.

# CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued

Reports Received from December 26, 1925, to June 11, 1926—Continued

## CHOLERA—Continued

Place	Date	Cases	Deaths	Remarks
Indo-China				September-December, 1925: Cases, 11; deaths, 7.
Province—				
Annam	Sept. 1-30	2	2	
Cambodia	Dec. 1-31	2	1	
Cochin China	Sept. 1-Dec. 31	6	4	
Saigon	Jan. 4-17	2	2	Including 100 square kilometers of surrounding country. Present.
Do.	May 20			
Tonkin	Sept. 1-Nov. 30	3		
Japan	Aug. 30-Oct. 17	409		
Do	Oct. 25-Dec. 26	113		
Do	Jan. 17-30	5		
Philippine Islands:				
Manila	Nov. 9-Jan. 3	15	10	
Do	Jan. 4-Mar. 6		27	
Province—				
Bataan	Nov. 30-Dec. 26	20	25	
Do	Jan. 2-16	1	1	
Batangas	Jan. 24-Feb. 20	13	13	
Bohol	Jan. 23-30	1	1	
Bulacan	Oct. 18-Nov. 7	22	64	
Do	Nov. 23-Dec. 31	200	88	
Do	Jan. 2-30	6	6	
Laguna	Nov. 23-Dec. 26	18	14	
Do	Jan. 24-Feb. 6	5	6	
Leyte	Jan. 3-9	2	2	
Mindoro	Dec. 20-31	35	30	
Nueva Ecija	Nov. 30-Dec. 13	7	5	
Pampanga	Nov. 1-7	1	1	
Do	Nov. 23-Dec. 31	113	85	
Do	Jan. 2-Mar. 3	39	35	
Rizal	Sept. 27-Nov. 21	75	21	
Do	Dec. 21-30	14	11	
Do	Jan. 3-Feb. 20	89	30	
Romblon	Nov. 3-Dec. 13	27	14	
Russia	May-June	7		
Do	July-August	4		
Siam:				
Bangkok	Oct. 4-Nov. 14	108	68	
Do	Nov. 23-Dec. 26	270	149	
Do	Dec. 27-Mar. 13	398	275	
Do	Mar. 21-27	90	52	
Do	Apr. 4-10	102	61	
On vessel:				
Steamship	Oct. 3	9		Arrived at Bangkok, Siam: Cases in coolie passengers.

## PLAGUE

Argentina					
Buenos Aires	Jan. 24-30	1			Jan. 24-30, 1926: 6 cases, occur- ing in interior Provinces of Salta and Santa Fe.
Azores:					
St. Michaels	Jan. 17-Apr. 3	9	4		
Belgium:					
Vilvorde	Dec. 1-8	1	1		
Brazil:					
Bahia	Nov. 8-Dec. 28	3	1		
Do	Dec. 27-Jan. 30	4	2		
Santos	Dec. 8-21		2		
Sao Paulo	Reported Mar. 25	4	1		
British East Africa:					
Kenya—					
Kisumu	Nov. 22-Dec. 5	1	2		
Do	Jan. 31-Mar. 20	15	3		
Uganda Protectorate	Sept. 1-Dec. 31	468	426		
Do	Jan. 1-Feb. 28	189	143		
Canary Islands:					
La Laguna	Dec. 24	3	2		
Las Palmas	do	1			
Do	Jan. 7	1			
Santa Cruz de Tenerife	Dec. 18-27	3	1		
Do	Dec. 28-Feb. 1	3			
Celebes:					
Makassar	Dec. 28-Feb. 2	12	12		Netherlands East Indies.

# CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued

Reports Received from December 26, 1925, to June 11, 1926—Continued

## PLAGUE—Continued

Place	Date	Cases	Deaths	Remarks
Ceylon:				
Colombo.....	Nov. 15-Dec. 5.....	3	3	1 plague rodent.
Do.....	Dec. 27-Jan. 16.....	2	2	
Do.....	Jan. 24-Apr. 24.....	6	6	Feb. 14-20, 1926: 2 plague rodents.
China:				
Nanking.....	Nov. 15-Apr. 24.....			Prevalent.
Ecuador:				
Ambato.....	Mar. 31.....		5	
Eloy Alfaro.....	Jan. 1-15.....	1		
Guayaquil.....	Nov. 1-Dec. 1.....	31	12	Rats taken, Nov. 1-Dec. 31, 1925,
Do.....	Jan. 1-May 15.....	66	29	49,370, rats found infected, 281.
				Rats taken, Jan. 1-May 15,
				1926: 93,539; rats found infected,
				666.
Latacunga.....	Apr. 12.....			Present.
Recreo (country estate).....	Jan. 1-15.....	1		
Egypt.....				
Alexandria.....	Mar. 10-Apr. 22.....	4	1	Jan. 1-Dec. 9, 1925: Cases, 138.
Beni Suef.....	Nov. 18.....	1	1	Jan. 1-Apr. 22, 1926: Cases, 16.
Fayoum Province.....	Dec. 3-9.....	1	1	
Gharbia Province.....	Mar. 9-30.....	5	3	
Mina Province.....	Mar. 4.....	1	1	
Suez.....	Mar. 27-Apr. 22.....	7	1	
Greece.....				
Athens.....	Nov. 1-30.....	18	4	Including Piræus.
Do.....	Jan. 1-Mar. 31.....	25	4	
Herakleion.....	Feb. 4.....	1		On island of Crete.
Patras.....	Nov. 13-Dec. 12.....	4	1	
Hawaii Territory.....	Feb. 2.....			1 plague infected rodent found
Hawaii.....				near Hamakua Mill Co.
Honokaa.....	Mar. 16.....	2		1 death suspected plague.
Kakuihala.....	Mar. 19.....	1	1	
Pasaulo.....				Jan. 29, 1926: Plague-infected rat
				found in vicinity.
India.....				
Bombay.....	Dec. 6-12.....	1	12	Oct. 18, 1925, Jan. 2, 1926: Cases,
Do.....	Jan. 3-Apr. 10.....	7		15,135; deaths, 10,677. Jan. 3-
Calcutta.....	Dec. 6-12.....		1	Mar. 13, 1926: Cases, 53,563;
Karachi.....	Nov. 1-Dec. 19.....	4	3	deaths, 41,553. Mar. 21-Apr.
Do.....	Feb. 21-Apr. 24.....	22	10	10, 1926: Cases, 32,319; deaths,
Madras Presidency.....	Oct. 25-Nov. 7.....	75	41	25,991.
Do.....	Nov. 15-21.....	35	22	
Do.....	Dec. 20-26.....	108	64	
Do.....	Jan. 3-Mar. 20.....	1229	773	
Do.....	Mar. 27-Apr. 10.....	80	51	
Rangoon.....	Oct. 25-Dec. 26.....	23	15	
Do.....	Dec. 27-Apr. 17.....	124	113	
Indo-China.....				September-December, 1925:
Province.....				Cases, 28; deaths, 26.
Cambodia.....	Sept. 1-Nov. 30.....	13	13	
Cochin China.....	Sept. 1-Dec. 31.....	15	13	
Iraq:				
Bagdad.....	Dec. 13-Jan. 2.....	7	3	
Do.....	Jan. 10-Apr. 17.....	111	61	
Java.....	Feb. 28-Mar. 6.....		5	
Batavia.....	Oct. 24-Nov. 6.....	94	89	Province.
Do.....	Nov. 14-Jan. 1.....	315	297	
Do.....	Jan. 2-Mar. 12.....	483	468	
Do.....	Mar. 19-Apr. 2.....	19	19	
Cheribon.....	Sept. 27-Oct. 17.....		166	
Do.....	Nov. 15-Dec. 26.....		198	
Do.....	Jan. 3-Mar. 6.....		191	
Djokjakarta.....	Oct. 20-Nov. 9.....			Epidemic in 1 locality.
Kediri.....	Dec. 7.....			Do.
Koeninagan.....	Dec. 27-Jan. 16.....		114	
Do.....	Feb. 7-Mar. 6.....		103	
Pekalongan.....	Sept. 27-Oct. 17.....		42	
Do.....	Nov. 8-Dec. 26.....		252	
Do.....	Feb. 14-Mar. 6.....		123	
Probolinggo.....	Feb. 12.....			Epidemic. Port.
Rembang.....	Oct. 20.....			Do.
Surabaya.....	Oct. 11-Dec. 26.....	59	59	
Do.....	Dec. 27-Apr. 10.....	46	46	
Tegal.....	Sept. 27-Oct. 17.....	6	6	
Do.....	Nov. 8-Dec. 26.....		31	
Do.....	Feb. 21-Mar. 6.....		11	

# CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued

Reports Received from December 26, 1925, to June 11, 1926—Continued

## PLAGUE—Continued

Place	Date	Cases	Deaths	Remarks
Madagascar.....				Nov. 1-Dec. 31, 1925: Cases, 632; deaths, 533. Jan. 1-31, 1926: Cases, 611; deaths, 555.
Province—				Mar. 1-15, 1926: Cases, 111; deaths, 79.
Ambositra.....	Dec. 16-31.....	9	7	
Do.....	Jan. 1-15.....	2	2	
Port Dauphin.....	Sept. 16-30.....	6	3	
Do.....	Jan. 16-Mar. 15.....	4	4	
Itasy.....	Sept. 16-Oct. 30.....	20	20	
Do.....	Nov. 16-Dec. 31.....	34	34	
Do.....	Jan. 1-15.....	29	29	
Do.....	Feb. 1-15.....	29	29	
Moramanga.....	Sept. 16-Dec. 31.....	49	48	
Do.....	Jan. 1-Mar. 15.....	51	47	
Tananarive.....				Sept. 16-Nov. 30, 1925: Cases, 368; deaths, 341. Dec. 16-31, 1925: Cases, 152; deaths, 143.
Town—				Jan. 1-Mar. 15, 1926: Cases, 583; deaths, 486.
Tamatave (Port).....	Sept. 16-Nov. 30.....	42	11	
Do.....	Feb. 1-Mar. 15.....	5	3	
Tananarive.....	Sept. 16-30.....	2	2	
Do.....	Nov. 1-30.....	11	11	
Do.....	Jan. 1-Mar. 15.....	40	40	
Mauritius Island.....	Sept. 20-Dec. 26.....	21	18	
Moca.....	Dec. 1-31.....	2	2	
Pamplemousses.....	Oct. 1-Nov. 30.....	3	2	
Port Louis.....	Oct. 1-Dec. 31.....	13	9	
Rivière du Rempart.....	October.....	2		
Morocco:				
Tangier.....	May 9-15.....	1	1	
Nigeria.....	Aug. 1-Dec. 31.....	594	447	
Do.....	Jan. 1-31.....	24	21	
Persia:				
Teheran.....	Oct. 21-Nov. 21.....		12	
Peru.....				January-March, 1926: Cases, 383; deaths, 148.
Barranca and Supo.....	Mar. 1-31.....	4	6	
Cajeta.....	do.....	1		
Caras.....	do.....			Present.
Casca.....	do.....	15	5	
Chilaya.....	do.....		4	
Chimbote.....	do.....	16	8	
Chincha.....	do.....	14	5	
Cuzco.....	do.....	12		
Cuzco.....	do.....			Country estates.
Huarco.....	do.....			Present.
Huancabamba.....	Jan. 20.....	15		
Lacranmarca.....	Mar. 1-31.....	6		
Lima.....	Jan. 1-31.....	20		
Mollendo.....	do.....			In hospital. Some cases in Province.
Do.....	Mar. 1-31.....			12 or 15 cases reported unofficially.
Moroc.....	do.....			Present.
Otuzco.....	do.....	1		
Pacasmayo.....	do.....	2	1	
Salaverry.....	do.....	5	2	
San Pablo.....	do.....			Do.
Trujillo.....	do.....	15	5	
Russia.....	May-June.....	67		
Do.....	July 1-Dec. 31.....	256		
Senegal.....	September-October.....	45	25	
Siam.....	Aug. 23-Dec. 26.....	65	53	
Do.....	Dec. 27-Jan. 30.....	16	9	
Bangkok.....	Nov. 15-28.....	3	3	
Do.....	Jan. 3-30.....	38	33	
Do.....	Feb. 7-20.....	11	5	
Do.....	Feb. 28-Apr. 10.....	5	2	
Straits Settlements:				
Singapore.....	Nov. 1-Dec. 5.....	8	8	
Do.....	Jan. 3-Mar. 20.....	3	3	
Syria:				
Beirut.....	Nov. 11-20.....	1		
Do.....	Jan. 21-31.....	1		
Union of South Africa.....				Mar. 7-13, 1926: Cases, 3; European, 2. Mar. 21-27, 1926: Cases, 12; deaths, 4. Apr. 4-17, 1926: Cases, 7; deaths, 4.
Cape Province.....	Apr. 4-10.....	1	1	
Cradock district.....	Apr. 11-17.....	2	2	
Kimberley district.....	Dec. 13-19.....	1		Native.
Middleburg district.....	Dec. 6-12.....	1		European.
Steynsburg district.....	Nov. 15-21.....	1		Native. On farm.
Winburg district.....	Feb. 21-27.....	1		

# **CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued**

**Reports Received from December 26, 1925, to June 11, 1926—Continued**

## **PLAGUE—Continued**

Place	Date	Cases	Deaths	Remarks
Union of South Africa—Con. Orange Free State.....				Mar. 14-Apr. 10, 1926: Cases 11; deaths, 5
Boshof district.....	Nov. 29-Dec. 5....	1	1	In native.
Bothaville district.....	Dec. 6-12.....	1	1	Native. On farm.
Bradford district.....	Mar. 28-Apr. 3....	1	1	
Grandfort district.....	Mar. 21-27.....	3	1	European, in same family, pneumonic.
Hoopstad district.....	Mar. 7-Apr. 17....	10	5	
Kroonstad district.....	Mar. 14-20.....	1		Native. On farm.
Winburg district.....	Mar. 14-Apr. 3....	11	5	
On vessel: Steamship Cld.....				Jan. 29, 1926. Plague rat. At Buenaventura, Colombia. Rat was killed while jumping ashore from vessel.

## **SMALLPOX**

Algeria:				
Algiers.....	Nov. 21-Dec. 31....	177		
Do.....	Jan. 1-10.....	64		
Do.....	Jan. 21-Apr. 20....	78		
Arabia:				
Aden.....	Nov. 29-Dec. 5....	1		Imported.
Do.....	Jan. 10-Mar. 6....	10	1	
Argentina:				
Rosario.....	October.....		1	
Australia:				
Queensland—				
Brisbane.....	Dec. 9-15.....	1		
Azores:				
Fayal Island.....	Feb. 2-Apr. 11....			Present. Reported as alastrim.
Bahamas.....	Feb. 23.....			In Nassau district. Stated to have been imported.
Brazil:				
Manaos.....	Dec. 1-31.....		12	
Do.....	Jan. 31-Feb. 20....		6	
Para.....	Jan. 10-May 8....	35	10	
Rio de Janeiro.....	Nov. 1-28.....	134	72	
Do.....	Dec. 6-26.....	65	26	
Do.....	Dec. 27-Apr. 3....	279	224	June 27, 1925-Mar. 20, 1926: Cases, 1,089; deaths, 580.
British East Africa:				
Kenya—				
Mombasa.....	Nov. 15-Dec. 19....	14	6	
Do.....	Dec. 27-Mar. 20....	2		
Tanganyika territory—				
Dar-es-Salaam.....	Feb. 21-27.....	1		
Uganda Protectorate.....	Sept. 1-Oct. 31....	8	4	
Do.....	Feb. 1-28.....	1		
British South Africa:				
Northern Rhodesia.....	Jan. 5-11.....	2		
Southern Rhodesia.....	Nov. 13-Dec. 23....	3		
Canada.....				Sept. 13-Jan. 2: In 7 Provinces, 186 cases. Jan. 3-May 8, 1926: Cases, 504.
Alberta.....				Jan. 3-May 1, 1926: Cases, 70.
Calgary.....	Dec. 13-19.....	1		From Drumheller, vicinity of Calgary.
British Columbia—				
Vancouver.....	Jan. 4-Mar. 27....	2		
Victoria.....	Mar. 21-27.....	2		
Manitoba.....				Jan. 3-May 8, 1926: Cases, 78.
Winnipeg.....	Dec. 13-19.....	2		
Do.....	Jan. 3-Apr. 10....	16	1	
New Brunswick—				
Northumberland.....	Dec. 6-13.....	1		
Ontario.....				Dec. 1-31, 1925: Cases, 32. Jan. 3-May 8, 1926: Cases, 269.
Admaston.....	Jan. 1-Feb. 1.....	16		Township.
Alice and Fraser.....	Feb. 1-28.....	6		Do.
King.....	do.....	7		Do.
Wilmet.....	do.....	6		Do.
Belleville.....	do.....	4		

# CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued

Reports Received from December 26, 1925, to June 11, 1926—Continued

## SMALLPOX—Continued

Place	Date	Cases	Deaths	Remarks
Canada—Continued.				
Ontario—Continued.				
Kingston	Mar. 8-14	1		
Kitchener	do	28		
North Bay	Feb. 11-Mar. 14	7		
Ottawa	Dec. 6-12	2		
Do	Jan. 3-Feb. 6	2		
Sarnia	Mar. 14-May 8	9		
Toronto	Dec. 27-Jan. 2	1		
Do	Jan. 3-May 15	31		
Trenton	Jan. 3-Apr. 17	15		
Saskatchewan				Jan. 3-May 8, 1926: Cases, 131.
Moose Jaw	Jan. 3-Mar. 20	2		
Regina	Jan. 24-May 1	5		
Saskatoon	Feb. 14-20	1		
Ceylon:				
Colombo	Dec. 6-12	1		Port case.
Do	Jan. 3-Feb. 6	5		
Chile:				
Punta Arenas	Dec. 13-26		8	
Do	Dec. 27-Jan. 2		4	
China:				
Amoy	Oct. 25-Dec. 19		1	
Do	Jan. 10-Apr. 17		35	
Antung	Dec. 7-20	2		
Do	Mar. 21-Apr. 24	2		
Changsha	Feb. 21-27			Present.
Chungking	Nov. 15-17			Do.
Do	Feb. 28-Apr. 3			Do.
Foochow	Nov. 1-Apr. 17			Do.
Hankow	Nov. 14-Dec. 26	4		
Do	Jan. 10-Mar. 6	3		
Hongkong	Nov. 22-Dec. 26	4		
Do	Jan. 3-Apr. 3	17	5	
Manchuria—				
An-shan	Dec. 6-12	1		
Do	Jan. 10-May 1	12		South Manchuria Railway.
Changchun	do	51	1	Do.
Dairen	Oct. 19-Dec. 27	73	15	Do.
Do	Dec. 28-Apr. 11	60	28	Do.
Fushun	Jan. 17-May 1	7		Do.
Harbin	Jan. 1-May 6	38		Do.
Kai-yuan	Jan. 10-May 1	7		Do.
Kungchuling	Jan. 31-May 1	3		Do.
Liao-yang	Jan. 17-Apr. 24	6		Do.
Mukden	Oct. 24-Nov. 15	1		Do.
Do	Jan. 24-Feb. 27	4		Do.
Suping Kai	Mar. 14-May 1	4		Do.
Tieh-ling	Oct. 26-Nov. 15	2		Do.
Do	Apr. 18-24	1		Do.
Nanking	Nov. 21-Dec. 26			Do.
Do	Dec. 27-Apr. 24			Do.
Shanghai	Oct. 25-Jan. 2	37	38	
Do	Jan. 3-May 1	64	143	Cases, foreign only.
Swatow	Nov. 22-Apr. 24			Prevalent.
Tientsin	Nov. 1-Dec. 19	2		
Do	Jan. 23-Feb. 27	2		
Chosen:				
Seishin	Jan. 1-Mar. 31	58	33	
Curacao	May 3-9	1		From Trinidad.
Egypt:				
Alexandria	Dec. 3-31	5	2	
Do	Jan. 8-14	2	1	
Do	Jan. 29-Apr. 8	63	11	
Cairo	Dec. 25-31	14		
Do	Jan. 1-7	3		
Port Said	Feb. 26-Mar. 4	1		
Estonia				November, 1925: Cases, 3.
France				September-December, 1925: Cases, 253.
Do	Jan. 1-Feb. 28	93		
Havre	Jan. 25-31		9	
Paris	Mar. 1-Apr. 30	11	2	
French Settlements in India	Jan. 3-Mar. 6	167	150	
Gold Coast	September, De-	58	5	
Do	cember, Jan. 1-Feb. 28	133	5	

# CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued

Reports Received from December 26, 1925, to June 11, 1926—Continued

## SMALLPOX—Continued

Place	Date	Cases	Deaths	Remarks
Great Britain:				
England and Wales				Nov. 15-Dec. 26, 1925: Cases, 790;
Bradford	May 2-15	3		Dec. 27-May 1, 1926: Cases,
Hull	Dec. 27-Jan. 23	29		4,290.
Do.	Feb. 7-Mar. 27	9		
Leeds	Jan. 14-Feb. 6	4		
London	Jan. 31-Feb. 6		1	
Newcastle-on-Tyne	Nov. 29-Dec. 19	6		
Do.	Dec. 27-May 2	41	1	
Nottingham	Nov. 22-Dec. 26	9		
Do.	Dec. 27-Apr. 24	8		
Sheffield	Nov. 22-Dec. 12	7		
Do.	Dec. 20-26	3		
Do.	Dec. 27-Mar. 20	18		
Do.	Apr. 25-May 8	3		
South Shields	Feb. 9			Reported present in severe form.
Greece				Oct. 1-31, 1925: Cases, 16.
Athens	Nov. 1-Dec. 31	18	1	
Do.	Jan. 1-Mar. 31	87	6	
Kalamata	Mar. 1-7	1		From Patras.
Saloniki	Feb. 16-Apr. 12		3	
Guadeloupe (West Indies)				Apr. 23-May 10, 1926: Present.
India				Alastrim.
Bombay	Nov. 8-Dec. 26	28	20	Oct. 18-Dec. 26, 1925: Cases,
Do.	Dec. 27-Apr. 10	328	171	19,472; deaths, 4,446. Dec 27
Calcutta	Nov. 8-Dec. 26	48	25	1925-Apr. 10, 1926: Cases,
Do.	Dec. 27-Apr. 3	630	397	99,599; deaths, 25,653.
Karachi	Nov. 1-21	23		
Do.	Nov. 29-Dec. 5	4	2	
Do.	Dec. 13-19	3		
Do.	Dec. 29-May 1	138	45	
Madras	Nov. 15-Dec. 26	17	5	
Do.	Dec. 27-May 1	153	27	
Rangoon	Oct. 25-Dec. 26	7	1	
Do.	Dec. 27-Jan. 18	13	1	
Do.	Jan. 24-Mar. 6	70	17	
Do.	Mar. 21-Apr. 17	29	9	
Indo-China				September-November, 1925:
Province—				Cases, 346; deaths, 80.
Annam	Sept. 1-Dec. 31	232	44	
Cambodia	do.	84	34	
Cochin China	do.	106	51	
Saigon	Dec. 21-27	2	1	
Do.	Jan. 1-Mar. 28	14	2	
Tonkin	Sept. 1-Dec. 31	163	2	Including 160 square kilometers
Iraq:				of surrounding country.
Bagdad	Nov. 1-Dec. 26	19	15	Sept. 6-Oct. 17, 1925: Cases, 81;
Do.	Dec. 27-Apr. 17	23	13	deaths, 40.
Basra	do.	67	51	
Italy				Aug. 2, 1925-Jan. 2, 1926: Cases,
Catania	Feb. 15-28	7	1	52. Jan. 3-Mar. 27, 1926: Cases,
Do.	Apr. 27-May 2	4		38.
Genoa	Jan. 21-Feb. 10	4		
Rome	Oct. 12-25	1		
Do.	Feb. 22-28	1		Occurring in consular district.
Jamaica				Nov. 29-Dec. 26, 1925: Cases, 95.
				Dec. 27, 1925-Apr. 24, 1926:
				Cases, 509. Reported as alastrim.
Kingston	Nov. 29-Dec. 26	43		Reported as alastrim.
Do.	Dec. 27-Jan. 30	48		Do.
Do.	Feb. 23-Apr. 24	30		Do.
Japan:				
Kobe	Mar. 14-Apr. 17	3		
Nagasaki	Feb. 15-25	2		
Taiwan	Nov. 11-Dec. 10	3		
Do.	Mar. 21-31	3		
Yokohama	Dec. 14-20	1		
Do.	Feb. 23-Apr. 17	71	11	
Java:				
Batavia	Oct. 24-Dec. 25	8		
Do.	Feb. 20-Mar. 19	6		
Buitenzorg	Nov. 29-Dec. 5	1		
Cheribon	Nov. 8-Dec. 12	2		
Do.	Jan. 31-Feb. 6		1	

# CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued

Reports Received from December 26, 1925, to June 11, 1926—Continued

## SMALLPOX—Continued

Place	Date	Cases	Deaths	Remarks
Java—Continued.				
East Java and Madoera	Mar. 28-Apr. 10.	9	—	
Kraksaan	Oct. 11-17	11	—	
Malang	Oct. 11-Dec. 26	2	—	
Do.	Dec. 27-Jan. 16	3	2	
North Bantam	Oct. 4-17	4	—	
Pekalongan	Oct. 25-31	1	—	
Pontianak	Jan. 31-Feb. 6	—	1	
Probolinggo	Oct. 11-17	1	—	
Serang	Feb. 14-27	5	—	
South Bantam	Feb. 23-Mar. 27	1	—	
Surabaya	Oct. 11-Dec. 26	633	104	
Do.	Dec. 27-Mar. 13	141	43	
Tegal	Oct. 4-10	9	1	
Latvia				December, 1925: Cases, 3.
Malta	Nov. 1-Dec. 21	21	3	
Do.	Jan. 1-Feb. 28	20	—	
Martinique	May 10	—	—	Prevalent.
Fort de France	Apr. 11-May 1	6	—	Alastrim.
Mexico				July-September, 1925: Deaths, 1,157.
Agualientes	Dec. 13-Jan. 2	4	3	
Do.	Jan. 3-30	—	7	
Do.	Feb. 14-May 22	—	6	
Camargo	May 22	2	—	
Chihuahua	May 9-17	7	—	
Ciudad Juarez	May 9-24	—	2	
Durango	Dec. 1-31	—	1	
Do.	Jan. 1-31	—	2	
Guadalajara	Dec. 27-May 17	—	26	
Mexico City	Nov. 28-Dec. 5	1	—	Including municipalities in Federal District.
Do.	Jan. 3-May 15	32	—	Do.
Saltillo	Apr. 4-10	1	—	
San Luis Potosi	Jan. 17-Mar. 20	—	53	
Do.	Mar. 28-May 22	15	38	
Tampico	Dec. 21-Jan. 2	1	1	
Do.	Jan. 2-Mar. 10	8	—	
Torreón	Nov. 1-Dec. 31	—	51	
Do.	Jan. 1-Apr. 30	—	80	
Vera Cruz	Mar. 29-Apr. 4	5	1	
Netherlands:				
The Hague	Jan. 30-Mar. 6	2	1	
Nigeria				Aug. 1-Dec. 31, 1925: Cases, 389; deaths, 6.
Do.	Jan. 1-31	135	1	
Palestine:				
Hebron	Jan. 26-Feb. 1	2	—	
Tiberias	Feb. 9-15	1	—	
Persia:				
Teheran	July 23-Dec. 22	—	775	
Do.	Dec. 23-Feb. 19	—	99	
Peru:				
Arequipa	Oct. 1-Dec. 31	—	2	
Poland				Nov. 1-28, 1925: Cases, 9. Jan. 1-Mar. 27, 1926: Cases, 20. Mar. 1-28, 1926: Deaths, 6.
Portugal				
Lisbon	Oct. 4-31	124	—	
Do.	Nov. 16-Dec. 27	—	60	
Do.	Nov. 14-Dec. 26	187	—	
Do.	Dec. 27-Apr. 25	126	32	
Oporto	Nov. 22-Dec. 19	2	3	
Do.	Dec. 27-Apr. 24	4	1	
Rumania	August-October	3	—	
Russia				May-June, 1925: Cases, 2,333. July 1-Dec. 31, 1925: Cases, 4,019.
Senegal:				
Dakar	Apr. 19-25	1	—	
Siam				July 12-Sept. 5, 1925: Cases 21; deaths, 6.
Bangkok	Dec. 20-25	3	1	
Do.	Dec. 26-Mar. 6	81	37	
Do.	Mar. 14-Apr. 10	30	18	
Sierra Leone:				
Kono district	Dec. 16-31	5	—	



# CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued

Reports Received from December 26, 1925, to June 11, 1926—Continued

## SMALLPOX—Continued

Place	Date	Cases	Deaths	Remarks
Spain:				
Madrid	Year 1925		18	
Do.	Jan. 1-31		1	
Malaga	Nov. 29-Dec. 5		2	
Do.	Dec. 27-Jan. 2		1	
Valencia	Dec. 20-26	1		
Do.	Dec. 27-Jan. 2	1		
Do.	Jan. 10-Feb. 6	9		
Do.	Feb. 14-May 8	15		
Straits Settlements:				
Penang	Mar. 28-Apr. 3		1	
Singapore	Dec. 20-26	1		
Do.	Jan. 10-Mar. 27	8	2	
Sumatra				
Medan	Feb. 14-27	2		
Switzerland				June 23-Nov. 21, 1925: Cases, 62; Dec. 27, 1925-Apr. 3, 1926: Cases, 51.
Lucerne	Oct. 1-Nov. 30	8		
Do.	Jan. 1-31	5		
Zurich	Dec. 27-Jan. 2	1		
Syria:				
Damascus	Apr. 11-20	1		
Trinidad (West Indies):				
Port of Spain	Jan. 1-Apr. 3	12		
Tripolitania	July 1-Dec. 31	34		
Do.	Jan. 1-Feb. 28	12		
Tunisia				Jan. 1-Mar. 31, 1926; cases, 123.
Tunis	Nov. 21-30	2		
Do.	Dec. 11-31	10	1	
Do.	Jan. 1-Apr. 20	7	1	
Turkey:				
Constantinople	Mar. 9-23	2	3	
Union of South Africa:				
Cape Province	Jan. 17-23			Outbreaks.
Orange Free State				Do.
Kuruman district	Jan. 10-16			Do.
Ladybrand district	Dec. 27-Jan. 2			
Transvaal				Do.
Belfast district	do.			Do.
Germiston district	Jan. 2-9			Do.
Protoria district	Dec. 6-12			Outbreaks. In native com- pounds.
On vessel	Feb. 21	2		Mexican steamer Monteruma, at Port of Ensenada, Mexico.

## TYPHUS FEVER

Algeria:				
Algiers	Nov. 1-Dec. 20	2		
Do.	Jan. 1-Apr. 10	13		
Argentina:				
Rosario	Oct. 13-Dec. 31	2		
Bulgaria	Sept. 1-Dec. 31	50	3	
Do.	Jan. 1-Feb. 28	112		
Sofia	Dec. 25-31	1		
Do.	Jan. 8-14	2		
Canary Islands:				
Santa Cruz de Tenerife	Mar. 8-14	1		
Chile				Dec. 15-31, 1925: Cases, 46. Jan. 1-15, 1926: Cases, 23.
Achao	Dec. 15-31	1		
Do.	Jan. 1-15	1		
Ancud	do.	2		
Antofagasta	Apr. 11-17	1		
Bulnes	Dec. 15-31	1		
Chillan	do.	24		
Concepcion	do.	6		
Linares	do.	1		
Los Angeles	do.	5		
Penco	do.	2		
Salamanca	do.	17		
San Carlos	do.	1		
Talca	do.	1		
Valparaiso	Nov. 29-Jan. 2	5	2	
Do.	Jan. 3-Mar. 27	4		

# CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued

Reports Received from December 26, 1925, to June 11, 1926—Continued

## TYPHUS FEVER—Continued

Place	Date	Cases	Deaths	Remarks
China:				
Antung	Nov. 29-Dec. 27	5	1	
Do	Jan. 4-Apr. 11	15		
Hongkong	Dec. 27-Jan. 2	1		
Manchuria—				
Harbin	Dec. 17-Feb. 4	3		
Do	Apr. 2-8	1		
Shanghai	Mar. 14-20	1		
Chosen				Jan. 1-31, 1926: Cases, 70; deaths, 7.
Czechoslovakia	October-December	146	1	
Do	Jan. 1-Feb. 28	67		
Egypt:				
Alexandria	Jan. 8-Feb. 25	2		
Cairo	Nov. 5-Dec. 16	3	2	
Port Said	Nov. 19-25	1		
Do	Mar. 12-Apr. 22	2		
Estonia	Jan. 1-Feb. 28	14		
Finland				October, 1925: 1 case.
France	July-October	4		
Greece				December, 1925: Cases, 12.
Athens	Nov. 1-30	11	2	
Do	Jan. 1-Mar. 31	45	9	
Saloniki	Dec. 29-Jan. 4	1		
Do	Feb. 2-Apr. 19	3		
Hungary				November-December, 1925: Cases, 16. Jan. 1-31, 1926: Cases, 6.
Ireland:				
Cork County—				
Cork	Dec. 26-Jan. 1	2		
Do	Jan. 2-8	5		
Do	May 2-8	1		
Dumanway	Nov. 14	1		
Galway County	Oct. 17	1		
Kerry County—				
Listowel	Mar. 7-13	1		Rural district.
Tipperary County—				
Cashel District	May 9-15	1		
Wexford County—				
Gorey	do	1		Do.
Italy	Feb. 21-Mar. 27	38		
Latvia	October-December	12		
Do	Feb. 1-Mar. 31	20		
Riga	Oct. 1-31	2		
Lithuania				September-December, 1925: Cases, 26; deaths, 1. Jan. 1-Feb. 28, 1926: Cases, 62, deaths, 1.
Mexico				July-September, 1925: Deaths, 90.
Aguascalientes	Dec. 14-19	1		
Do	May 2-8		1	
Durango	Dec. 1-31		1	
Do	Jan. 1-31		1	
Guadalajara	Dec. 8-28		2	
Do	Dec. 29-Jan. 4		1	
Mexico City	Nov. 22-Dec. 26	60		Including municipalities in Federal District.
Do	Dec. 27-Mar. 28	89		Do.
Do	Mar. 29-Apr. 10	11		Do.
Do	Apr. 25-May 1	10		Do.
San Luis Potosi	Feb. 6-13		1	
Tampico	Dec. 21-Jan. 10	1	1	
Torreon	November, 1925		1	
Vera Cruz	Feb. 12		1	
Morocco	August-December	93		
Do	Jan. 1-Feb. 28	130		
Norway				November-December, 1925: Cases, 2.

# CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued

Reports Received from December 26, 1925, to June 11, 1926—Continued

## TYPHUS FEVER—Continued

Place	Date	Cases	Deaths	Remarks
Palestine:				
Ekron.....	Mar. 30-Apr. 5.....	1	-----	
Gaza.....	Dec. 18.....	1	-----	
Haifa.....	Mar. 16-Apr. 19.....	2	-----	
Jaffa.....	Dec. 1-7.....	1	-----	
Do.....	Feb. 23-Mar. 1.....	1	-----	
Nazareth.....	Nov. 3-9.....	1	-----	
Ramleh.....	Mar. 16-22.....	1	-----	
Safed.....	Nov. 24-30.....	1	-----	
Tel-Aviv.....	do.....	1	-----	
Do.....	Mar. 9-15.....	1	-----	
Tiberias.....	do.....	2	-----	
Peru:				
Arequipa.....	October-December.....	-----	3	
Do.....	Feb. 1-Mar. 31.....	-----	2	
Poland.....	Oct. 11-Jan. 2.....	462	44	
Do.....	Jan. 3-Mar. 27.....	1,468	114	
Rumania.....				July 1-Dec. 31, 1925: Cases, 348; deaths, 41. Jan. 1-Feb. 23, 1926: Cases, 324; deaths, 21.
Constantza.....	Feb. 1-Mar. 10.....	2	-----	May-June, 1925: Cases, 10,680.
Russia.....				July 1-Dec. 31, 1925: Cases, 11,253. Jan. 1-Mar. 31, 1926: Cases, 180.
Do.....				
Tunisia:				
Tunis.....	Mar. 21-May 10.....	6	-----	
Turkey:				
Constantinople.....	Jan. 24-30.....	3	-----	
Do.....	Feb. 9-Mar. 31.....	6	4	
Union of South Africa.....				October, 1925: Cases, 88; deaths, 7 (colored). Cases, Europeans 7. December, 1925: Cases, 73; deaths, 9. Colored: Cases, 73; deaths, 9. Jan. 1-Mar. 31, 1926: Cases, 200; deaths, 29.
Cape Province.....	Oct. 1-31.....	63	5	Colored. Apr. 4-10, 1925: Outbreaks in Mount Currie and Tsolo district.
Do.....	Nov. 8-Dec. 31.....	47	8	
Do.....	Jan. 1-Mar. 31.....	159	21	
Grahamstown.....	Jan. 24-30.....	2	-----	
Kimberley district.....	Apr. 11-17.....	1	-----	At Beacons Field location.
Middleburg district.....	Dec. 6-12.....	1	-----	European. On farm.
Molteno district.....	Apr. 11-17.....	-----	-----	Outbreaks.
Steynsburg district.....	do.....	-----	-----	Do.
Natal.....	Oct. 1-Dec. 5.....	1	-----	
Do.....	Jan. 1-Mar. 31.....	13	1	Colored.
Durban.....	Jan. 3-Apr. 17.....	10	1	
Port Shepstone.....	Apr. 4-10.....	1	-----	
Orange Free State.....	Nov. 20-Dec. 5.....	23	1	
Do.....	Dec. 1-31.....	8	1	
Do.....	Jan. 1-Feb. 23.....	8	3	Do.
Bethulia district.....	Dec. 6-12.....	-----	-----	Outbreaks.
Bothaville district.....	do.....	1	-----	Native. On farm.
Transvaal.....	Oct. 1-31.....	1	1	
Do.....	Dec. 1-31.....	18	-----	
Do.....	Feb. 1-Mar. 31.....	9	4	
Johannesburg district.....	Mar. 1-20.....	3	-----	
Blce nhof district.....	Dec. 27-Jan. 2.....	-----	-----	Outbreak. On farm.
Yugoslavia.....				Jan 1-Mar. 21, 1926: Cases, 105; deaths, 13.

## YELLOW FEVER

Gold Coast.....	Sept. 1-Dec. 31.....	4	3
Nigeria.....	August-October.....	3	2
Senegal.....	November, 1925.....	3	2



TREASURY DEPARTMENT

# PUBLIC HEALTH REPORTS

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## ===== SPECIAL ARTICLES =====

Agglutination and Agglutinin Absorption in Tularæmia  
Reports of the Health Section of the League of Nations



WASHINGTON  
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1926

## UNITED STATES PUBLIC HEALTH SERVICE

HUGH S. CUMMING, *Surgeon General*

DIVISION OF SANITARY REPORTS AND STATISTICS

Asst. Surg. Gen. B. J. LLOYD, *Chief of Division*

THE PUBLIC HEALTH REPORTS are issued weekly by the United States Public Health Service through its Division of Sanitary Reports and Statistics, pursuant to acts of Congress approved February 15, 1893, and August 14, 1912.

They contain: (1) Current information of the prevalence and geographic distribution of preventable diseases in the United States in so far as data are obtainable, and of cholera, plague, smallpox, typhus fever, yellow fever, and other communicable diseases throughout the world. (2) Articles relating to the cause, prevention, or control of disease. (3) Other pertinent information regarding sanitation and the conservation of the public health.

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# PUBLIC HEALTH REPORTS

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## AGGLUTINATION, CROSS-AGGLUTINATION, AND AGGLUTININ ABSORPTION IN TULARÆMIA

By EDWARD FRANCIS, Surgeon, and ALICE C. EVANS, Associate Bacteriologist, Hygienic Laboratory, United States Public Health Service

### Abbreviations:

To avoid the constant repetition of the technical names in their nomenclatorial forms, we adopt in this paper the following abbreviations:

*tularensis*=*Bacterium tularensis* McCoy and Chapin, 1912.

*melitensis*=*Brucella melitensis* variety *melitensis* [A] (Bruce, 1893)

—Evans, 1923, Public Health Reports, Vol. 38, p. 1943.

*abortus*=*Brucella melitensis* variety *abortus* (Bang, 1897)

—Evans, 1923, Public Health Reports, Vol. 38, p. 1943.

Only these two varieties of *Brucella melitensis* are considered in the present paper because they are the only varieties known to occur commonly in the United States.

The final diagnosis in tularæmia rests on the isolation of a culture of *tularensis* or on agglutination of a stock culture of this organism by the patient's blood serum. The latter is a reliable test and has been employed in the Hygienic Laboratory of the United States Public Health Service at Washington, D. C., for several years as a routine test of suspected serums submitted for diagnosis.

Tularæmia serums have been received from 24 States, from the District of Columbia, and from Japan. A study of these serums has been supplemented by a study of the agglutinin reactions in experimental animals; the results are presented under the following heads:

### A. Agglutination:

- (1) Agglutination of *tularensis* by human tularæmic serums.
- (2) Nonagglutination of various organisms by human and animal tularæmic serums.
- (3) Nonagglutination of *tularensis* by nontularæmic human and animal serums.
- (4) Nonagglutination of *abortus* and *melitensis* by human and animal serums.

### B. Cross agglutination:

- (1) Cross agglutination of *abortus* and *melitensis* by human and animal tularæmic serums.
- (2) Cross agglutination of *tularensis* by serums from cases of undulant fever and by serums of animals immunized against *abortus* and *melitensis*.

## C. Agglutinin absorption:

- (1) Agglutinin absorption reactions of human and animal tularæmic serums.
- (2) Reciprocal agglutinin absorption reactions of four *tularensis* strains.
- (3) Reciprocal agglutinin absorption of *tularensis*, *abortus* and *melitensis*.

Technique.

Summary.

Conclusions.

(1) AGGLUTINATION OF *TULARENSE* BY HUMAN TULARÆMIC SERUMS

Table 1 presents agglutination titers of 120 cases of tularæmia. In 28 of these cases the initials of the patient's name are given and tests of his serum taken at intervals are recorded, showing the rise and fall of agglutinin titer in the individual as time progressed; in 92 cases no initials are given and only a single sample of serum was tested for each case; hence no two records are for the same individual.

Analysis of Table 1 shows: A complete absence of agglutinins for *tularensis* in the first week of tularæmia; the constant presence of agglutinins in the second week; an abrupt rise in titer in the third week, reaching its maximum in the fourth, fifth, sixth, or seventh week; a fall of titer in the eighth week; a gradual decline thereafter until at the end of the first year the average titer of 17 cases was 1:136; a persistence of agglutinins in long-recovered cases; and the failure of agglutinins entirely to disappear in any case even 10, 14, and 18 years after recovery.

Five market men who showed agglutinin titers of 80, 80, 40, 40, and 40, respectively, were not included in Table 1 because the date of onset of their illness could not be determined. These men had been engaged annually in the rabbit season in skinning and dressing rabbits, but were without knowledge of an attack which could be definitely ascribed to tularæmia. It is believed that the maintenance of their agglutinin titer was not due to annual exposure to infection but to a persistence of agglutinins from their first attack; for it has been observed that, in laboratory workers, the degree of persistence of agglutinins is no greater in those exposed daily to infection than in those who have not been exposed since their attack of tularæmia.

TABLE 1.—*Agglutination titers of blood serums of 120 cases of tularemia*

Cases	Week of illness								Years after onset of illness																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
	First	Second	Third	Fourth	Fifth	Sixth	Seventh	Eighth	Months																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
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28 cases, tested 2 or more times each:	3 days; 0	9 days; 80	16 days; 320	23 days; 320		320																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																

\* Positive.

† Case in the Lister Institute, London, England.

TABLE 1.—*Agglutination titers of blood scrums of 120 cases of typharermia—Continued*

Cases	Week of illness								Months		Years after onset of illness									
	First	Second	Third	Fourth	Fifth	Sixth	Seventh	Eighth	3	6	1	2	3	4	5	6	10	14	18	
22 cases, tested only once each		12 days; 40	15 days; 160	23 days; 640	80	160	40	320	160	80	20	20	60				40		20	
		12 days; 640	16 days; 80	24 days; 320	320	320	80	320	320	160	20	20	80							
		14 days; 20	17 days; 320	24 days; 320	320	640	619	320	320	240	160	40	40							
		14 days; 640	17 days; 640	24 days; 320	640	640	640	320	640	320	80	80								
			17 days; 320	25 days; 320	640	640	1,280	640	320	150	160									
			17 days; 640	25 days; 640	1,280	640	1,280	640	320	320	160									
			18 days; 160	27 days; 320	320	1,280	2,560	320	320	320	160									
			19 days; 320	27 days; 320	320	1,280	2,560	320	320	320	160									
			20 days; 160	27 days; 320	320	1,280	2,560	320	320	320	160									
			20 days; 320	28 days; 320	320	2,560		640												
Average																				
	0	155	450	720	728	824	916	540	340	260	136	60	96	60	73	40	40	40	20	

(2) NONAGGLUTINATION OF VARIOUS ORGANISMS BY HUMAN AND ANIMAL TULARÆMIC SERUMS

Human tularæmic serums of high titer have been tested for agglutination of the following organisms with negative results: *B. typhosus*, paratyphoid A, paratyphoid B, *B. dysenteriae*, *B. pestis*, meningococcus, pneumococcus, and *Proteus* X<sub>19</sub>.

The serum of a rabbit immunized against *tularensis* strain 12, agglutinated *tularensis* in all dilutions from 1:10 to 1:2,560, but failed to agglutinate *B. typhosus* or *B. pestis* in dilutions of from 1:10 to 1:320.

The serum of a rabbit immunized against *tularensis* strain 38, agglutinated *tularensis* in all dilutions from 1:10 to 1:2,560, but failed to agglutinate *B. typhosus*, paratyphoid A or paratyphoid B in dilutions of from 1:10 to 1:160.

The serums of five rabbits immunized against *tularensis* strains 38, 45, 26, 13, and 12, and having anti-*tularensis* titers of 1,280, 2,560, 2,560, 5,120, and 5,120, respectively, failed to agglutinate *B. typhosus* in dilutions from 1:10 to 1:160.

(3) NONAGGLUTINATION OF *TULARENSE* BY NONTULARÆMIC HUMAN AND ANIMAL SERUMS

Of 500 serums received for routine Wassermann examination and tested also for agglutination of *tularensis* in dilutions of 1:10, 20, and 40, 15 agglutinated in maximum dilution of 1:10, but were negative to the Wassermann test; 5 agglutinated in maximum dilution of 1:20, 2 of which gave a strong Wassermann; none agglutinated in dilution of 1:40; 61 serums positive to the Wassermann and 419 serums negative to the Wassermann failed to agglutinate in dilutions of 1:10 and higher.

The following human serums also failed to agglutinate *tularensis* in dilutions of 1:10 and higher; 4 typhoid serums having titers of 40, 80, 320, and 640, respectively, and 2 typhus serums having titers of 2,000 and 160, respectively, for *Proteus* X<sub>19</sub>.

The serum of a rabbit immunized against *B. typhosus* agglutinated *B. typhosus* in all dilutions from 1:10 to 1:5,120, but failed to agglutinate *tularensis* in dilutions from 1:10 to 1:320. Serums of 10 rabbits immunized by intravenous injection of commercial typhoid vaccines agglutinated *B. typhosus* up to 1:1,600, but failed to agglutinate *tularensis* in dilutions from 1:10 to 1:160.

Serums of 11 rabbits immunized against washed red cells of a sheep while preparing hemolytic amboceptor failed to agglutinate *tularensis* in dilutions of 1:10, 20, and 40.

Serums of 14 normal rabbits failed to agglutinate *tularensis* in dilutions of 1:10, 20, 40, and 80.

Through the cooperation of Dr. William Charles White a tularensen suspension was submitted to Dr. David Perla, of the Henry Phipps Institute, to whom we are indebted for making agglutination tests with the sera of 51 cases of pulmonary tuberculosis.

At the time when the agglutinations were made the tuberculo-complement fixation, the Wassermann, the Cautfield inhibitive test, and, in some cases, the agglutination test with tubercle bacilli were carried out.

The sera were tested in dilutions of 1:5, 10, 20, 40, and 80. Thirteen sera agglutinated tularensen completely in dilution of 1:5, one agglutinated completely in dilution of 1:10; none agglutinated completely in dilution of 1:20 or higher. In a few instances a trace was recorded in dilutions as high as 1:40.

There seemed to be no relation between the agglutination with tubercle bacilli and that with tularensen when tested with human tuberculous sera.

Dr. Stuart Mudd, of the Henry Phipps Institute, very courteously tested for agglutination of tularensen with antitubercle rabbit sera prepared by Dr. J. Furth, also of that institute, with the following results: (1) Of two rabbits immunized against two human strains, respectively, one agglutinated tularensen partially in dilutions of 1:10, 20, and 40, while the other failed to agglutinate in all dilutions; (2) of two rabbits immunized against a bovine strain, one agglutinated tularensen completely in dilution of 1:10 and partially in 1:20, while the other failed to agglutinate in all dilutions.

#### (4) NONAGGLUTINATION OF *ABORTUS* AND *MELITENSIS* BY HUMAN AND ANIMAL SERUMS

Of 100 human tularemia sera tested for agglutination of *tularensen*, *abortus*, and *melitensis*, 63 failed to agglutinate *abortus* or *melitensis*, although they agglutinated *tularensen* (see Table 2). The 37 which agglutinated all three organisms are discussed under the next heading.

Of 500 human sera received for routine Wassermann examination and tested also for agglutination of *melitensis* by Evans,<sup>1</sup> 11 agglutinated in maximum dilution of 1:10, 2 agglutinated in maximum dilution of 1:20, 2 in maximum dilution of 1:40, and 1 in maximum dilution of 1:320; 484 failed to agglutinate in dilutions of 1:10 or higher.

Sera of the 14 normal rabbits which failed to agglutinate *tularensen*, failed also to agglutinate *abortus* and *melitensis* in dilutions of 1:10, 20, 40, and 80.

TABLE 2.—One hundred human tularæmia serums tested for cross agglutination of *abortus* and *melitensis*

Tularense titer of serums	Number showing cross agglutination of <i>abortus</i> and <i>melitensis</i>	Number showing no cross agglutination of <i>abortus</i> and <i>melitensis</i>
10.....	0	0
20.....	0	3
40.....	0	3
80.....	0	7
160.....	0	9
320.....	15	16
640.....	12	12
1,280.....	7	7
2,560.....	3	1
Total.....	37	63

TABLE 3.—Cross agglutination by human tularæmia serums from 37 cases

Case	Time after onset	Tularense	Abortus	Melitenis	Treatment of serum
R. R. S.	18 days.....	640	40	40	Unheated, glycerin.
	26 days.....	1,280	1,280	640	Do.
	7 months.....	640	320	320	55°, no preservative.
	9 months.....	640	320	320	Do.
	1 year.....	320	320	320	55°, trikresol.
	1 year 4 months.....	640	320	320	Do.
B. F. T.	3 days.....	0	0	0	Unheated, glycerin.
	9 days.....	0	0	0	Do.
	16 days.....	1,280	160	320	Do.
	23 days.....	320	160	320	Unheated, paracresol.
	42 days.....	320	160	160	Unheated, trikresol.
E. W. M.	5 days.....	0	0	0	Unheated, glycerin.
	11 days.....	160	0	0	Do.
	18 days.....	320	160	160	Do.
	25 days.....	1,280	320	160	Unheated, paracresol.
	71 days.....	320	80	160	Unheated, trikresol.
	87 days.....	320	80	80	Unheated, glycerin.
J. W. G.	40 days.....	640	160	160	Do.
	53 days.....	640	160	160	Unheated, trikresol.
A. M.	11 days.....	160	0	-----	Unheated, no preservative.
	24 days.....	2,560	160	-----	Do.
	33 days.....	1,280	80	80	55°, no preservative.
	79 days.....	640	80	40	Do.
R. D.	23 days.....	640	80	160	Do.
F. C.	49 days.....	1,280	80	80	Do.
S. S. M.	25 days.....	1,280	80	-----	Unheated, glycerin.
	46 days.....	640	40	80	Do.
A. L.	45 days.....	2,560	80	80	Do.
G.	56 days.....	640	80	160	Unheated, trikresol.
S. T. M.	23 days.....	1,280	80	160	Do.
J. W. M.	21 days.....	640	80	80	Do.
D. B.	10 days.....	1,280	80	80	Unheated, glycerin.
L. R. B.	32 days.....	1,280	80	80	55°, no preservative.
(Dr. F.)	17 days.....	640	80	80	Do.
S. H.	32 days.....	320	80	40	Unheated, trikresol.
D. F.	24 days.....	320	80	160	Do.
J. J.	do.....	640	40	20	Do.
R. McK.	23 days.....	1,280	40	80	Do.
A. S.	14 days.....	640	-----	40	Unheated, glycerin.
J. W. H.	43 days.....	2,560	20	40	Do.
H. D.	44 days.....	1,280	40	40	Unheated.
A.	24 days.....	320	40	40	Phenol.
Y.	31 days.....	320	40	40	Do.
T.	27 days.....	320	40	40	Do.
C. W.	19 days.....	320	20	10	Unheated.
J. B. K.	56 days.....	640	20	-----	Do.
St. F. H.	-----	320	20	40	Trikresol.
E. C. W.	37 days.....	640	20	20	Unheated.
F. B.	do.....	640	20	10	Do.
L. F.	36 days.....	1,280	20	-----	Do.
G. H.	42 days.....	320	20	20	Do.
J. B.	64 days.....	320	20	-----	Do.
C. R. W.	28 days.....	320	10	-----	Do.
J. N.	56 days.....	320	10	-----	Do.
W. F. S.	21 days.....	320	10	-----	Unheated, glycerin.
C. L.	36 days.....	320	10	-----	Do.

(5) CROSS AGGLUTINATION OF *ABORTUS* AND *MELITENSIS* BY HUMAN TULARÆMIA SERUMS

Cross agglutination of *abortus* (the cause of contagious abortion of animals) and *melitensis* (the cause of undulant fever) was noted in dilution of 1 : 10 or higher in 37 of 100 cases of tularæmia as set forth in Tables 2 and 3.

Analysis of these tables shows the following: No serum with a tularæmia titer less than 320 gave cross agglutination of *abortus* or *melitensis*; of serums showing anti-tularensis titers of 320, 640, 1280, and 2560, the number which gave cross agglutination of *abortus* and *melitensis* was 37, while the number which gave no cross agglutination was 36, thus showing a failure of high-titer serums consistently

## TULARAEMIA, HUMAN(R.R.S.) AGGLUTINATION

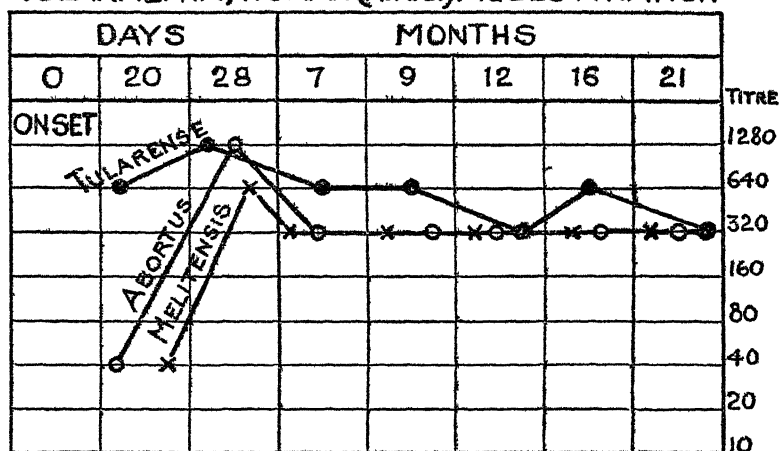


CHART 1.—Showing agglutination of *tularensis*, *abortus*, and *melitensis* to the same, or nearly the same, degree by a human tularæmia serum

to show cross agglutination; as a rule, a tularæmia serum agglutinated *tularensis* in much higher dilution than it agglutinated *abortus* or *melitensis*; exceptions to that rule were noted in the first three serums listed in Table 3, in which tests are seen where *tularensis* serums agglutinated *tularensis*, *abortus*, and *melitensis* to the same or nearly the same degree.

The significance of these observations, from the viewpoint of diagnosis, is that a suspected tularæmia serum should be tested, not only for agglutination of *tularensis* but also for agglutination of either *abortus* or *melitensis*. It has been established by Evans<sup>1</sup> that a serum which agglutinates one of the latter two organisms will also agglutinate the other.

<sup>1</sup> Evans, Alice C: Studies on *Brucella* (Alkaligenes) *Melitensis*; Hyg. Lab. Bull. 143, United States Public Health Service, 1925.



If the *tularensis* titer of a serum is much higher than the *abortus* or *melitensis* titers, no doubt is left as to the diagnosis of tularæmia; moreover, at the end of one hour's incubation, a tularæmia serum will have nearly reached its maximum *tularensis* titer, while the *abortus* and *melitensis* reactions will be just beginning.

Serums showing a very high degree of cross agglutination (see Chart 1) must be subjected to agglutinin absorption tests, by which it will be found that a tularæmia serum, after absorption by *tularensis*, will no longer agglutinate *tularensis*, *melitensis*, or *abortus*; but a tularæmia serum, after absorption by either *melitensis* or *abortus*, will still agglutinate *tularensis* to the full titer at which it agglutinated *tularensis* before being absorbed.

### ANTI-TULARENSE RABBIT #38: AGGLUTINATION

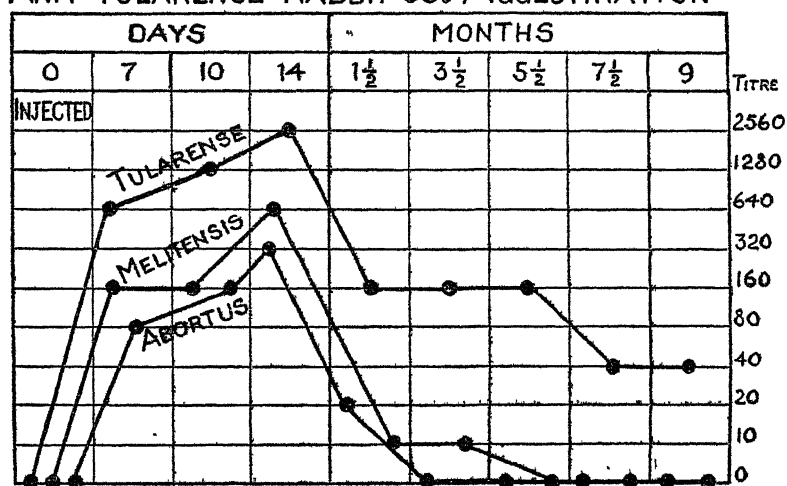


CHART 2.—Showing agglutination of *tularensis*, *abortus*, and *melitensis* by the serum of a rabbit immunized against *tularensis*

#### (6) CROSS AGGLUTINATION OF *ABORTUS* AND *MELITENSIS* BY SERUMS OF RABBIT, SHEEP, HORSE, AND ROOSTER AFTER IMMUNIZATION AGAINST *TULARENSE*

Table 4 shows that there is the same agglutinin response in animals immunized in the laboratory against *tularensis* that there is in man after acquiring the disease in nature.

Animals immunized against *tularensis* developed agglutinins for *tularensis*, *abortus*, and *melitensis*, but the degree of agglutination for *tularensis*, was, as a rule, much higher than that for *abortus* or *melitensis*. In sheep 2, however, the titer for *tularensis* and *abortus* reached the same height (1 : 320). Chart 2 shows that in rabbit 38

TABLE 4.—Cross agglutination of abortus and melitensis by antitularense serums of rabbit, sheep, horse, and rooster

Antitularense serums	Date injected	Date bled	Date tested	Agglutination titers			Treatment of serum
				Tularense	Abortus	Melitensis	
Rabbit 38, injected intravenously; strain 38	Mar. 13, 1925 Mar. 20, 1925 Mar. 23, 1925 Mar. 13, 1925 Mar. 20, 1925 Mar. 23, 1925	Mar. 27, 1925	Apr. 5, 1925	2,560	320	320	55°, trikresol.
Rabbit 45-1, injected intravenously; strain 45	Mar. 20, 1925 Mar. 23, 1925 Mar. 26, 1925 Mar. 27, 1925 Mar. 30, 1925 Mar. 31, 1925	Mar. 30, 1925	Apr. 5, 1925	2,560	160	160	Do.
Rabbit J-5, injected subcutaneously; strain J	June 26, 1923 July 25, 1923 Aug. 6, 1923 Sept. 10, 1923 Oct. 20, 1923 Nov. 10, 1923	Feb. 27, 1925 July 31, 1925 Aug. 8, 1925 Jan. 26, 1926 Oct. 26, 1925 Oct. 26, 1925	Feb. 27, 1925 Aug. 8, 1925 Jan. 26, 1926 Oct. 26, 1925 Oct. 26, 1925 Oct. 26, 1925	1,280 640 320 320 1,280 320	160 160 320 320 80 80	320 80 160 640 160 80	Unheated, no preservative. 55°, trikresol. Do. Do. Do. Do.
Rabbit 7, injected subcutaneously; strain M	Mar. 10, 1924 Mar. 11, 1924 Mar. 11, 1924 Apr. 1, 1924 Apr. 8, 1924 Apr. 16, 1924	Mar. 25, 1924 Mar. 25, 1924 Mar. 25, 1924 Apr. 25, 1924 Apr. 25, 1924 Apr. 25, 1924	Oct. 26, 1925 Oct. 26, 1925 Oct. 26, 1925 Oct. 26, 1925 Oct. 26, 1925 Oct. 26, 1925	20 20 20 20 20 20	80 80 80 80 80 80	80 80 160 160 160 160	Unheated, no preservative. Do. Do. Do. Do. Do.
Sheep 2, injected subcutaneously; strain 13, 26, 38	Apr. 23, 1925 Apr. 26, 1925 Apr. 26, 1925 Apr. 26, 1925 Apr. 26, 1925 Apr. 26, 1925	May 4, 1925 May 4, 1925 May 4, 1925 May 4, 1925 May 4, 1925 May 4, 1925	Oct. 26, 1925 Oct. 26, 1925 Oct. 26, 1925 Oct. 26, 1925 Oct. 26, 1925 Oct. 26, 1925	10 1,250 1,250 1,250 1,250 1,250	20 160 160 160 160 160	20 320 320 320 320 320	65° trikresol. Unheated, no preservative. Do. Do. Do. Do.
Sheep 4, injected subcutaneously; strain V	Apr. 23, 1925 Apr. 26, 1925 Apr. 26, 1925 Apr. 26, 1925 Apr. 26, 1925 Apr. 26, 1925	May 4, 1925 May 4, 1925 May 4, 1925 May 4, 1925 May 4, 1925 May 4, 1925	Oct. 26, 1925 Oct. 26, 1925 Oct. 26, 1925 Oct. 26, 1925 Oct. 26, 1925 Oct. 26, 1925	640 640 640 640 640 640	80 80 80 80 80 80	80 80 80 80 80 80	Do. Do. Do. Do. Do. Do.
Sheep 4, serum before injection	Apr. 23, 1925 Apr. 26, 1925 Apr. 26, 1925 Apr. 26, 1925 Apr. 26, 1925 Apr. 26, 1925	May 4, 1925 May 4, 1925 May 4, 1925 May 4, 1925 May 4, 1925 May 4, 1925	Oct. 26, 1925 Oct. 26, 1925 Oct. 26, 1925 Oct. 26, 1925 Oct. 26, 1925 Oct. 26, 1925	640 640 640 640 640 640	80 80 80 80 80 80	80 80 80 80 80 80	Do. Do. Do. Do. Do. Do.
Horse 1, injected subcutaneously; strain V	Apr. 23, 1925 Apr. 26, 1925 Apr. 26, 1925 Apr. 26, 1925 Apr. 26, 1925 Apr. 26, 1925	May 4, 1925 May 4, 1925 May 4, 1925 May 4, 1925 May 4, 1925 May 4, 1925	Oct. 26, 1925 Oct. 26, 1925 Oct. 26, 1925 Oct. 26, 1925 Oct. 26, 1925 Oct. 26, 1925	640 640 640 640 640 640	80 80 80 80 80 80	80 80 80 80 80 80	Do. Do. Do. Do. Do. Do.
Horse 1, serum before injection	Apr. 23, 1925 Apr. 26, 1925 Apr. 26, 1925 Apr. 26, 1925 Apr. 26, 1925 Apr. 26, 1925	May 4, 1925 May 4, 1925 May 4, 1925 May 4, 1925 May 4, 1925 May 4, 1925	Oct. 26, 1925 Oct. 26, 1925 Oct. 26, 1925 Oct. 26, 1925 Oct. 26, 1925 Oct. 26, 1925	640 640 640 640 640 640	80 80 80 80 80 80	80 80 80 80 80 80	Do. Do. Do. Do. Do. Do.
Horse 2, injected subcutaneously; strain V	Apr. 23, 1925 Apr. 26, 1925 Apr. 26, 1925 Apr. 26, 1925 Apr. 26, 1925 Apr. 26, 1925	May 4, 1925 May 4, 1925 May 4, 1925 May 4, 1925 May 4, 1925 May 4, 1925	Oct. 26, 1925 Oct. 26, 1925 Oct. 26, 1925 Oct. 26, 1925 Oct. 26, 1925 Oct. 26, 1925	640 640 640 640 640 640	80 80 80 80 80 80	80 80 80 80 80 80	Do. Do. Do. Do. Do. Do.
Horse 2, serum before injection	Apr. 23, 1925 Apr. 26, 1925 Apr. 26, 1925 Apr. 26, 1925 Apr. 26, 1925 Apr. 26, 1925	May 4, 1925 May 4, 1925 May 4, 1925 May 4, 1925 May 4, 1925 May 4, 1925	Oct. 26, 1925 Oct. 26, 1925 Oct. 26, 1925 Oct. 26, 1925 Oct. 26, 1925 Oct. 26, 1925	640 640 640 640 640 640	80 80 80 80 80 80	80 80 80 80 80 80	Do. Do. Do. Do. Do. Do.
Rooster L, injected intravenously; strain 28	Apr. 23, 1925 Apr. 26, 1925 Apr. 26, 1925 Apr. 26, 1925 Apr. 26, 1925 Apr. 26, 1925	May 4, 1925 May 4, 1925 May 4, 1925 May 4, 1925 May 4, 1925 May 4, 1925	Oct. 26, 1925 Oct. 26, 1925 Oct. 26, 1925 Oct. 26, 1925 Oct. 26, 1925 Oct. 26, 1925	640 640 640 640 640 640	80 80 80 80 80 80	80 80 80 80 80 80	Do. Do. Do. Do. Do. Do.
Rooster R, injected intravenously; strain 38	Apr. 23, 1925 Apr. 26, 1925 Apr. 26, 1925 Apr. 26, 1925 Apr. 26, 1925 Apr. 26, 1925	May 4, 1925 May 4, 1925 May 4, 1925 May 4, 1925 May 4, 1925 May 4, 1925	Oct. 26, 1925 Oct. 26, 1925 Oct. 26, 1925 Oct. 26, 1925 Oct. 26, 1925 Oct. 26, 1925	640 640 640 640 640 640	80 80 80 80 80 80	80 80 80 80 80 80	Do. Do. Do. Do. Do. Do.
Rooster M, injected intravenously; strain 13	Apr. 23, 1925 Apr. 26, 1925 Apr. 26, 1925 Apr. 26, 1925 Apr. 26, 1925 Apr. 26, 1925	May 4, 1925 May 4, 1925 May 4, 1925 May 4, 1925 May 4, 1925 May 4, 1925	Oct. 26, 1925 Oct. 26, 1925 Oct. 26, 1925 Oct. 26, 1925 Oct. 26, 1925 Oct. 26, 1925	640 640 640 640 640 640	80 80 80 80 80 80	80 80 80 80 80 80	Do. Do. Do. Do. Do. Do.

Note.—Blood serum collected from rabbits 38 and 45-1 and from sheep 2 before immunization failed to agglutinate *tularense*, *ebortus*, or *melitensis* in dilutions of 1:10, 20, and 40. Blood serum of rabbits 7 and J-5 was not tested for agglutination before immunization. Blood serum of the roosters collected before immunization failed to agglutinate *ebortus* and *melitensis* in dilutions from 1:10 to 1:320.

the persistence of agglutinins was longer for *tularensis* than for *abortus* or *melitensis*.

(7) CROSS-AGGLUTINATION OF *TULARENSE* BY SERUMS FROM CASES OF UNDULANT OR MALTA FEVER

Cross agglutination of *tularensis* by serums from cases of undulant fever was noted in three of eight serums tested (see Table 5); but the degree of cross agglutination was so small as to leave no doubt as to the diagnosis. In the case of D. Z., when his *melitensis* titer was 2,560 his *tularensis* titer was 80; but six months later, when his *melitensis* titer had fallen to 160 his *tularensis* titer was zero. In the case of B. T. S., when his *melitensis* titer was 1,280 his *tularensis* titer was 20; in the case of - W., when his *melitensis* titer was 640, his *tularensis* titer was 10.

TABLE 5.—Cross agglutination by serums of cases of undulant fever

Case	Time after onset	<i>Tular- ense</i>	<i>Abortus</i>	<i>Meli- tensis</i>	Treatment of serum
D. Z.-----	30 days-----	80	2,560	-----	Unheated, no preservative.
	7 months-----	0	160	160	Do.
B. T. S.-----	8 days-----	20	640	1,280	56° C. 1 hour.
D. C. F.-----	2 months-----	0	640	640	Unheated, no preservative.
St. L. <sup>1</sup> -----	9 weeks-----	0	160	640	No preservative.
-J. <sup>1</sup> -----	Several weeks-----	0	320	320	Do.
M. W. E. <sup>1</sup> -----	19 weeks-----	0	80	20	Do.
M. C. <sup>1</sup> -----	About 2 months-----	0	320	160	0.2% trikresol.
-W. <sup>1</sup> -----	A few weeks-----	0	320	-----	No preservative.
	8 days after first test--	10	640	-----	Do.

<sup>1</sup> The method of carrying out the test of these serums differed somewhat from that generally used. The antigens were twice as dense, and incubation was at 56° C. for four hours.

The serum from case D. C. F. is of special interest to the diagnostic laboratory in that the serum came to us with a request for an agglutination of *tularensis*. The attending physician had suspected tularemia because the patient had been dressing rabbits; but he had overlooked the occupation of his patient, which was that of butcher. Had we merely complied with the request and tested the serum against *tularensis* we would have missed the diagnosis. We tested the serum, as is our routine procedure, against both *tularensis* and *abortus* and found agglutinins for *abortus* but none for *tularensis*, thus reaching the correct diagnosis in the case.<sup>1</sup>

(8) CROSS AGGLUTINATION OF *TULARENSE* BY SERUMS OF RABBITS IMMUNIZED AGAINST *ABORTUS* AND *MELITENSIS*

Table 6 shows that rabbits immunized against *abortus* and *melitensis* developed agglutinins for *tularensis* just as man and animals

<sup>1</sup> Evans, Alice G.: Studies on Brucella (Alkaligenes) Melitensis. Hyg. Lab. Bull. 143, United States Public Health Service, 1925.

immunized against *tularensis* develop agglutinins for *abortus* and *melitensis*, but the agglutinin titer for *abortus* and *melitensis* was higher and persisted longer than for *tularensis* (see Chart 3).

#### (9) AGGLUTININ ABSORPTION OF HUMAN TULARÆMIA SERUMS

Table 7 presents the agglutinin absorption reactions of four tularæmia serums and shows that they reacted as follows:

#### AGGLUTINATION:—

#### ANTI-ABORTUS RABBIT 426-4

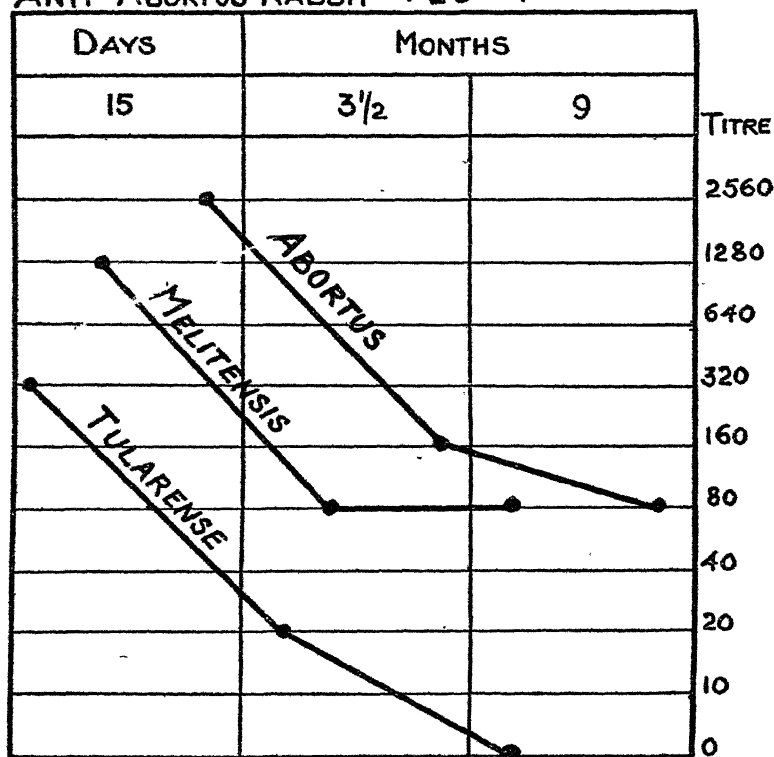


CHART 3.—Showing agglutination of *tularensis*, *abortus*, and *melitensis* by the serum of a rabbit immunized against *abortus*

(1) After absorption by *tularensis* they lost all agglutinins for *tularensis*, *abortus*, and *melitensis*; (2) after absorption by *abortus*, they retained all agglutinins for *tularensis*, but lost all agglutinins for *abortus* and *melitensis*; (3) after absorption by *melitensis* they retained all agglutinins for *tularensis*, lost all agglutinins for *melitensis*, and showed a reduction of agglutinins for *abortus* to at least 6 per cent.

TABLE 6.—Cross agglutination of tularensis by serums of rabbits immunized against abortus and melitensis

Rabbit	Date injected	Date bled	Date tested	Agglutination titers			Treatment of serum
				Tularensis	Abortus, 426,	Melitensis, 428	
426-4, injected intravenously with abortus, 426	June 30, 1925	July 15, 1925	July 24, 1925	320	2,560	1,280	55° C. ½ hour, trikresol.
456-50, injected intravenously with abortus, 456	July 7, 1925	Aug. 12, 1925	Aug. 16, 1925	160	1,280	1,280	55° C. trikresol.
456-53, injected intravenously with abortus, 456	Aug. 4, 1925	Do.	Do.	160	1,280	2,560	Do.
428-3 injected intravenously with melitensis, 428	Aug. 8, 1925	July 15, 1925	Aug. 9, 1925	80	2,560	2,560	Do.

NOTE.—None of the above rabbits were tested for agglutinins before immunization. Serums 456-50 and 456-53 failed to agglutinate *B. typhosus* in dilutions of 1:10, 20, 40 and 80.

TABLE 7.—Agglutinin absorption reactions of four human antitularense serums

Antitularense serums	Agglutination of cultures																Absorbing dose of anti- gen per 0.5 c. c. of serum	Treatment of antigen					
	Agglutination of cultures																						
	<i>Tularense</i> , strain V								<i>Abortus</i> No. 426										<i>Melitensis</i> No. 428				
Dilutions, 1 in	10	20	40	80	160	320	640	1,280	2,560	5,120	10,240	20,480	40,960	80,192	160,384	320,768	640,1536	1,280 2,560					
(1) Case R. R. S., bled July 30, 1924: <sup>1</sup>																							
Not absorbed	4	4	4	4	4	4	4	3	0	4	4	4	4	4	4	4	4	3	0				
Absorbed by tularense V	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0				
Reabsorbed by tularense V	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	0				
Absorbed by abortus No. 426	4	4	4	4	4	4	4	4	0	0	0	0	0	0	0	0	0	0	0				
Absorbed by melitensis No. 428	4	4	4	4	4	4	4	3	0	0	4	4	0	0	0	0	0	0	0				
Reabsorbed by melitensis No. 428	4	4	4	4	4	4	4	1	0	4	4	0	0	0	0	0	0	0	0				
(2) Case E. F. T., bled June 12, 1925: <sup>2</sup>																							
Not absorbed	4	4	4	4	4	4	4	1	0	0	4	4	4	4	4	4	4	0	0				
Absorbed by tularense V	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
Absorbed by abortus No. 426	4	4	4	4	4	4	4	1	0	0	0	0	0	0	0	0	0	0	0				
Serum third day of illness	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
(3) Case E. W. M., bled June 5, 1925: <sup>3</sup>																							
Not absorbed	4	4	4	4	4	4	4	0	0	0	4	4	4	4	4	4	4	0	0				
Absorbed by tularense V	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
Absorbed by abortus No. 426	4	4	4	4	4	4	4	3	0	0	0	0	0	0	0	0	0	0	0				
Serum fifth day of illness	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
(4) Case J. W. G., bled May 19, 1925: <sup>4</sup>																							
Not absorbed	4	4	4	4	4	4	4	4	0	0	4	4	4	4	4	4	4	2	0	0			
Absorbed by tularense V	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
Absorbed by abortus No. 426	4	4	4	4	4	4	4	4	0	0	0	0	0	0	0	0	0	0	0				
Absorbed by melitensis No. 428	4	4	4	4	4	4	4	4	0	0	0	0	0	0	0	0	0	0	0				
Reabsorbed by melitensis No. 428	4	4	4	4	4	4	4	4	0	0	0	0	0	0	0	0	0	0	0				
Do.	4	4	4	4	4	4	4	4	0	0	0	0	0	0	0	0	0	0	0				
Do.	4	4	4	4	4	4	4	4	0	0	0	0	0	0	0	0	0	0	0				
Do.	4	4	4	4	4	4	4	4	0	0	0	0	0	0	0	0	0	0	0				
Do.	4	4	4	4	4	4	4	4	0	0	0	0	0	0	0	0	0	0	0				
Do.	4	4	4	4	4	4	4	4	0	0	0	0	0	0	0	0	0	0	0				
Do.	4	4	4	4	4	4	4	4	0	0	0	0	0	0	0	0	0	0	0				
Do.	4	4	4	4	4	4	4	4	0	0	0	0	0	0	0	0	0	0	0				
Do.	4	4	4	4	4	4	4	4	0	0	0	0	0	0	0	0	0	0	0				
Do.	4	4	4	4	4	4	4	4	0	0	0	0	0	0	0	0	0	0	0				
Do.	4	4	4	4	4	4	4	4	0	0	0	0	0	0	0	0	0	0	0				
Do.	4	4	4	4	4	4	4	4	0	0	0	0	0	0	0	0	0	0	0				
Do.	4	4	4	4	4	4	4	4	0	0	0	0	0	0	0	0	0	0	0				
Do.	4	4	4	4	4	4	4	4	0	0	0	0	0	0	0	0	0	0	0				
Do.	4	4	4	4	4	4	4	4	0	0	0	0	0	0	0	0	0	0	0				
Do.	4	4	4	4	4	4	4	4	0	0	0	0	0	0	0	0	0	0	0				
Do.	4	4	4	4	4	4	4	4	0	0	0	0	0	0	0	0	0	0	0				
Do.	4	4	4	4	4	4	4	4	0	0	0	0	0	0	0	0	0	0	0				
Do.	4	4	4	4	4	4	4	4	0	0	0	0	0	0	0	0	0	0	0				
Do.	4	4	4	4	4	4	4	4	0	0	0	0	0	0	0	0	0	0	0				
Do.	4	4	4	4	4	4	4	4	0	0	0	0	0	0	0	0	0	0	0				
Do.	4	4	4	4	4	4	4	4	0	0	0	0	0	0	0	0	0	0	0				
Do.	4	4	4	4	4	4	4	4	0	0	0	0	0	0	0	0	0	0	0				
Do.	4	4	4	4	4	4	4	4	0	0	0	0	0	0	0	0	0	0	0				
Do.	4	4	4	4	4	4	4	4	0	0	0	0	0	0	0	0	0	0	0				
Do.	4	4	4	4	4	4	4	4	0	0	0	0	0	0	0	0	0	0	0				
Do.	4	4	4	4	4	4	4	4	0	0	0	0	0	0	0	0	0	0	0				
Do.	4	4	4	4	4	4	4	4	0	0	0	0	0	0	0	0	0	0	0				
Do.	4	4	4	4	4	4	4	4	0	0	0	0	0	0	0	0	0	0	0				
Do.	4	4	4	4	4	4	4	4	0	0	0	0	0	0	0	0	0	0	0				
Do.	4	4	4	4	4	4	4	4	0	0													

1 Unheated, preserved by addition of an equal amount of pure neutral glycerin; tested Aug. 14, 1925.

2 Unheated, preserved with paracetol; tested June 20, 1925.

3 Unheated, preserved by addition of an equal amount of pure neutral glycerin; tested July 5, 1925.

4 Unheated, preserved with trikresol; tested July 6, 1925.

TABLE 8.—*Agglutinin absorption reactions of antitularense serums of rabbit, sheep, and rooster*

Antitularense serums	Agglutination of emulsions																Absorbing dose of antigen per 0.5 c. c. of serum	Treatment of antigen
	Tularense, strain V								Abortus No. 423									
	Melitensis No. 423																	
Dilutions, 1 in.....	10	20	40	80	160	320	640	1,280	2,560	5,120	10,240	20,480	40,960	81,920	163,840	327,680	655,360	1,310,720
(1) Rabbit No. 38, strain 38, bled Apr. 27, 1925. <sup>1</sup> Not absorbed by tularense V. Absorbed by tularense V. Absorbed by abortus 423. Absorbed by melitensis 423. Reabsorbed by melitensis 423. Serum before immunization.	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	0
(2) Sheep No. 2, strains 38, 26, 13, bled Aug. 9, 1922. <sup>2</sup> Not absorbed. Absorbed by tularense V. Absorbed by abortus 423. Reabsorbed by abortus 423. Absorbed by melitensis 423. Reabsorbed by melitensis 423. Serum before immunization.	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	0
(3) Rooster L, strain 26, bled May 4, 1925. <sup>3</sup> Not absorbed. Absorbed by tularense V. Absorbed by abortus 423. Absorbed by melitensis 423. Reabsorbed by melitensis 423. Serum before immunization.	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	0
(4) Rabbit No. 38, strain 38, bled Apr. 27, 1925. <sup>1</sup> Not absorbed. Absorbed by tularense V. Absorbed by abortus 423. Absorbed by melitensis 423. Reabsorbed by melitensis 423. Serum before immunization.	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	0
(5) Sheep No. 2, strains 38, 26, 13, bled Aug. 9, 1922. <sup>2</sup> Not absorbed. Absorbed by tularense V. Absorbed by abortus 423. Absorbed by melitensis 423. Reabsorbed by melitensis 423. Serum before immunization.	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	0
(6) Rooster L, strain 26, bled May 4, 1925. <sup>3</sup> Not absorbed. Absorbed by tularense V. Absorbed by abortus 423. Absorbed by melitensis 423. Reabsorbed by melitensis 423. Serum before immunization.	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	0

\* Unheated, no preservative; tested July 12, 1925.

<sup>1</sup> Heated 55°, 1½ hour preserved with trikresol; tested July 19, 1925.<sup>2</sup> Heated 55°, 1½ hour preserved with trikresol; tested Aug. 12, 1925.

(10) AGGLUTININ ABSORPTION OF ANTITULARÆMIC SERUMS OF RABBIT, SHEEP, AND ROOSTER

Table 8 shows that antitularæmic serums of the rabbit, sheep, and rooster reacted as follows: (1) After absorption by *tularensis* they lost all agglutinins for *tularensis*, *abortus*, and *melitensis*; (2) after absorption by *abortus* they retained all agglutinins for *tularensis*, but lost all agglutinins for *abortus* and *melitensis*, except that in case of the rooster some agglutinins for *melitensis* remained which probably would have been removed by reabsorption; (3) after absorption by *melitensis* they retained all agglutinins for *tularensis*, lost all agglutinins for *melitensis*, and showed a reduction of agglutinins for *abortus* to 50 per cent in the rabbit, to 12.5 per cent in the sheep, and to at least 6 per cent in the rooster.

(11) RECIPROCAL AGGLUTININ ABSORPTION REACTIONS OF FOUR *TULARENSE* CULTURES

Table 9 shows that three strains of American origin (V, M, and 38) were compared with each other by reciprocal agglutinin absorption and that no differences between them were found. In addition, strain M was similarly compared with strain J, which was of Japanese origin, and no difference between them was found.

(12) RECIPROCAL AGGLUTININ ABSORPTION REACTIONS OF *TULARENSE*, *ABORTUS*, AND *MELITENSIS*

Anti-*tularensis* rabbit 38 was immunized against strain 38, anti-*abortus* rabbit 426 was immunized against strain 426, and anti-*melitensis* rabbit 428 was immunized against strain 428. In carrying out the absorption tests, *tularensis* strain V was substituted for *tularensis* strain 38, no difference having been found between them by reciprocal agglutinin absorption tests (see Table 9).

Table 10 shows the following: (1) A *tularensis* serum, after absorption by *tularensis*, lost all agglutinins for *tularensis*, *abortus*, and *melitensis*; after absorption by *abortus*, lost all agglutinins for *abortus* and *melitensis* but retained all agglutinins for *tularensis*; after absorption by *melitensis*, lost all agglutinins for *melitensis*, retained all agglutinins for *tularensis*, but shows a reduction to only 50 per cent of agglutinins for *abortus*, even after reabsorption by *melitensis*. (2) An *abortus* serum, after absorption by *tularensis*, lost all agglutinins for *tularensis*, but retained all agglutinins for *abortus* and *melitensis*; after absorption by *abortus*, lost all agglutinins for *tularensis*, *abortus*, and *melitensis*; after absorption by *melitensis*, lost all agglutinins for *tularensis* and *melitensis* and showed a reduction to 12.5 per cent of agglutinins for *abortus*. (3) A *melitensis* serum, after absorption by *tularensis*, lost all agglutinins for *tularensis* but retained all agglu-



tinins for *abortus* and *melitensis*; after absorption by *abortus*, lost all agglutinins for *tularensis* and *abortus* and showed a reduction to about 12.5 per cent of agglutinins for *melitensis*; after absorption by *melitensis*, lost all agglutinins for *tularensis*, *abortus*, and *melitensis*.

#### TECHNIQUE

*Sources of cultures.*—Six *tularensis* cultures isolated by Francis were employed. Five of these came from cases of tularæmia and one from a rabbit. Their histories are as follows: V came from the spleen of a woman who died in Washington, D. C., December 30, 1923; M from the liver of a rabbit obtained from the Washington, D. C., market in January, 1923; 38 from an inguinal gland of a girl seen in Utah in September, 1920; 26 from the blood of man seen in Utah in July, 1920; 13 from a cervical gland of a boy seen in Utah in July, 1920; and J from a human gland received January 5, 1926, from Dr. H. Ohara, Fukushima City, Fukushima, Japan.

*Abortus* 426 is without definite history other than that Dr. K. F. Meyer obtained it from the Royal Army Medical Corps, London, England. It is not certain whether it was isolated in Austria.

*Melitensis* 428 was obtained from Dr. K. F. Meyer, who, in turn, received it from Dr. E. Sergent, Institut Pasteur d'Algérie, Tunis. It is not certain whether it was isolated in Tunisia.

*Antiserums.*—The human tularæmia serums studied were received at the Hygienic Laboratory, United States Public Health Service, Washington, D. C., for routine testing for the diagnosis of tularæmia.

The rabbit, sheep, and horse are available for the production of antitularæmic serums. The rabbit is the animal of choice on account of the well-established absence of agglutinins in its normal serum. If a sheep is to be used, its serum should be tested for agglutinins before immunization. The horse is the least desirable on account of the presence of agglutinins in the normal blood. Data relative to the preparation of the various antiserums used in this work will be found in the tables.

The human serums were usually tested without preliminary heating to 55°, although throughout the tables numerous instances are noted where the serums were heated.

Heating the serums was regarded as immaterial, it having been noted that heat did not reduce the titer of the specific agglutinins or of the cross agglutinins.

Preservation of the serum with trikresol or by the addition of an equal amount of pure, undiluted, neutral glycerine was without effect on the the agglutinins. The clouding effect of too large an amount of trikresol was avoided by adding not more than 0.1 per cent. Glycerin has the advantage of clearing the serum.

TABLE 9.—Reciprocal agglutinin absorption reactions of four tularenses V, M, 38, and J

Antitularense serums	Agglutination of cultures																			Treatment of antigen						
	Tularenses, strain V					Tularenses, strain M																				
	10	20	40	80	160	320	640	1	230	2	560	5	120	10	20	40	80	160	320	640	1	230	2	560	5	120
(1) Sheep No. 4, strain V, bled Mar. 27, 1924: <sup>1</sup> Not absorbed. Absorbed by tularenses V.	4	4	4	4	4	4	4	4	1	0	4	4	4	4	4	4	4	4	4	4	4	4	4	1	0	
Absorbed by tularenses M	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Absorbed by tularenses 38.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Serum before immunization.	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
(2) Rabbit No. 11, strain M, bled Aug. 11, 1923: <sup>1</sup> Not absorbed.	4	4	4	4	4	4	4	4	4	0	4	4	4	4	4	4	4	4	4	4	4	4	4	0	0	
Absorbed by tularenses V	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Absorbed by tularenses M	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Absorbed by tularenses 38.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
(3) Rabbit No. 38, strain 38, bled Mar. 27, 1925: <sup>1</sup> Not absorbed.	4	4	4	4	4	4	4	4	4	4	0	4	4	4	4	4	4	4	4	4	4	4	4	4	0	
Absorbed by tularenses V	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Absorbed by tularenses M	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Absorbed by tularenses 38.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Serum before immunization.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
(4) Rabbit J, strain J, bled February 4, 1925: <sup>4</sup> Not absorbed.	4	4	4	4	4	4	4	4	4	0	4	4	4	4	4	4	4	4	4	4	4	4	4	4	0	
Absorbed by J.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Absorbed by M.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
(5) Rabbit No. 11, strain M, bled Aug. 11, 1923: <sup>1</sup> Not absorbed.	4	4	4	4	4	4	4	4	4	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Absorbed by M.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Absorbed by J.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	

<sup>1</sup> Unheated, preserved with trikresol; tested Sept. 21, 1925.  
<sup>2</sup> Heated 55° C.,  $\frac{1}{2}$  hr., preserved with trikresol; tested Feb. 12, 1926.  
<sup>3</sup> Heated 55° C.,  $\frac{1}{2}$  hr., preserved with trikresol; tested Feb. 13, 1926.  
<sup>4</sup> Heated 55° C.,  $\frac{1}{2}$  hr., preserved with trikresol; tested Sept. 23, 1925.

TABLE 10.—*Reciprocal agglutinin absorption reactions of tularensis, abortus, and melitensis*

Rabbit antiserums	Agglutination of cultures																Absorbing dose of antigen per 0.5 c. c. of serum	Treatment of antigen								
	Tularensis, strain V								Abortus, strain 426										Melitensis, strain 428							
	10	20	40	80	160	320	640	1,280	2,560	5,120	10,240	20,480	40,960	80,192	160,384	320,768			640,1536	10,240	20,480					
(1) Antitularensis 38, bled Mar. 27, 1925: <sup>1</sup> Not absorbed. Absorbed by tularensis V Absorbed by abortus 426 Absorbed by melitensis 428. Reabsorbed by melitensis 428. Serum before immunization.	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	0	0							
(2) Antimelitensis 426, bled July 15, 1925: <sup>1</sup> Not absorbed. Absorbed by tularensis V Absorbed by abortus 426. Absorbed by melitensis 426. Reabsorbed by melitensis 426.	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	0	0							
(3) Antitularensis 428, bled July 15, 1925: <sup>1</sup> Not absorbed. Absorbed by tularensis V Absorbed by abortus 426. Absorbed by melitensis 428. Reabsorbed by melitensis 428.	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	0	0							
(4) Antimelitensis 426, bled July 15, 1925: <sup>1</sup> Not absorbed. Absorbed by tularensis V Absorbed by abortus 426. Absorbed by melitensis 428. Reabsorbed by melitensis 428.	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	0	0							

<sup>1</sup> Heated 55° C. ½ hour and preserved with trikresol; tested July 19, 1925.<sup>2</sup> Heated 55° C. ½ hour and preserved with trikresol; tested Aug. 9, 1925.

*Antigens.*—*Tularensis*, *abortus*, and *melitensis* cultures were grown on the same medium—glucose cystine agar—in Blake bottles; at the end of 72 hours the growth was washed off in normal saline solution by rocking the bottle in the hands; the suspension was thrown down in the centrifuge, and the sediment was taken up in normal saline solution to which formalin was added in the proportion of 0.1 per cent for *tularensis* and 0.2 per cent for *abortus* and *melitensis*, although in a few instances living *abortus* and *melitensis* antigens were used as noted in the tables. In no instance was an antigen killed by heat.

*Turbidity standard.*—The density of antigens is expressed in terms of the turbidity standard described in the Standard Methods of Water Analysis, published by the American Public Health Association. This standard is described on page 4 of the editions of 1917, 1920, 1923, and 1925.

“For preparation of the Standard, dry Pears’ precipitated fuller’s earth and sift it through a 200-mesh sieve. One gram of this preparation in 1 liter of distilled water makes a stock suspension which should have a turbidity of 1,000.

“Standards for comparison shall be prepared from this stock suspension by dilution with distilled water.”

A silica standard having a turbidity of 500, sealed in a glass ampule 10 millimeters in diameter and of 2 c. c. capacity, has been found satisfactory in determining the turbidity of bacterial suspensions. This turbidity was chosen because ordinary type is just legible through this standard. The sample in question is tested in a tube of the same size. Comparison is made by viewing ordinary type through standard and sample.

For example, if 0.1 c. c. of a bacterial suspension requires dilution with 1.9 c. c. of water before its turbidity, when compared in a 10-millimeter tube, becomes the same as the 500 silica standard, then the turbidity of the heavy suspension is considered to be 10,000; if 2.7 c. c. saline solution were required, the turbidity would be 14,000; if 8.8 c. c. of saline solution were required, the turbidity would be 44,500, etc.

For the agglutinin absorption tests it is desirable to have the turbidity of the stock antigens adjusted to some convenient number, such as 10,000, 20,000, 30,000, or 40,000; for example, to adjust a turbidity of 13,500 to 10,000, one would add 3.5 c. c. of saline solution to 10 c. c. of the antigen; to adjust a turbidity of 44,500 to 20,000, one would add 24.5 c. c. of saline solution to 20 c. c. of the antigen, or 12.25 c. c. of saline solution to 10 c. c. of the antigen, etc. It is immaterial at what turbidity the stock antigens are kept, so long as the turbidity is known.

For making agglutination tests, the stock antigens were diluted with normal saline solution to a turbidity of 500 and then added in

0.5 c. c. amount to each agglutination tube containing 0.5 c. c. of diluted serum so that agglutination took place in a turbidity of antigen of 250.

*Serum dilutions.*—The following scheme was followed:

- (1) 0.5 c. c. of serum + 2.0 c. c. saline = 1:5  
0.5 c. c. of (1) + 0.5 c. c. antigen = 1:10.
- (2) 1 c. c. of (1) + 1 c. c. of saline = 1:10  
0.5 c. c. of (2) + 0.5 c. c. antigen = 1:20, etc.

*Incubation.*—Agglutination tests, except as noted in Table 5, were carried out in the water bath at 37° C. for two and one-half hours, after which the tubes were placed overnight in the cold room at a temperature of about 10° C. and readings were recorded the next morning.

*Reading the results.*—A reading of 4 denotes complete sedimentation and a water-clear supernatant fluid; 3 denotes a supernatant turbidity equal to that in a control tube containing 25 per cent as much antigen as in the tubes in which the test was carried out; 2 denotes a supernatant turbidity equal to that in a control tube containing 50 per cent of the antigen; 1 denotes a supernatant turbidity equal to that in a control tube containing 75 per cent of the antigen.

*Absorption.*—The minimal absorbing dose of an antigen for its homologous antiserum must be sufficient to reduce the agglutinin content to 3 per cent or less. The absorbing dose is determined by a series of titrations and was found to vary enormously between *tularensis* on the one hand and *abortus* and *melitensis* on the other. The removal of agglutinins for *abortus* and *melitensis* required 4 to 6 times as much antigen as for the removal of agglutinins for *tularensis*.

Measurement of the absorbing dose was based on turbidity comparison. The necessary amount of stock antigen was placed in a centrifuge tube and thrown down in a centrifuge running at high speed for 1¼ hours; the supernatant fluid was poured off and the packed bacteria were thoroughly mixed with a 1:5 dilution in saline of the serum to be absorbed. The centrifuge tubes were not calibrated nor was any correction made for saline remaining in the packed bacteria mass, as the error from that source was considered to be not only very small but constant for all tests.

The time of absorption was 9 hours in the water bath at 37° C., followed by 12 hours in the cold room at 10° C. The tube containing the absorbed serum was then placed in a centrifuge running at high speed for 1¼ hours and the cleared serum was removed with a pipette. It was considered important that throughout the time of absorption and time in the centrifuge the centrifuge tube be covered with a rubber dam to prevent evaporation.

During absorption in the water bath the mixtures were agitated several times.

Reabsorption was carried out by the same procedure as outlined for absorption.

#### SUMMARY

A study of the blood serums of 120 cases of tularæmia tested for agglutination of *Bacterium tularensis* shows (1) a complete absence of agglutinins for *tularensis* in the first week of illness; (2) the constant presence of agglutinins in the second week; (3) an abrupt rise in titer in the third week, reaching its maximum in the fourth, fifth, sixth, or seventh week; (4) a fall in titer in the eighth week; (5) a gradual decline thereafter until at the end of the first year the average titer of 17 cases was 1 : 136; (6) a persistence of agglutinins in long-recovered cases; and (7) the failure of agglutinins entirely to disappear in any case, even 10, 14, and 18 years after recovery.

Human and animal *tularensis* serums of high titer failed to agglutinate *B. typhosus*, *B. pestis*, paratyphoid A, paratyphoid B, *B. dysenteriae*, meningococcus, pneumococcus, and *Proteus* X<sub>10</sub>. *Bacterium tularensis* was not agglutinated by 480 of 500 serums received at the Hygienic Laboratory for Wassermann test, nor by normal rabbit serums, nor by serums from cases of typhoid fever, typhus fever, and syphilis, nor by the serums of rabbits immunized against *B. typhosus*.

Cross agglutination of *abortus* and *melitensis* by human and animal *tularensis* serums was noted as follows: (1) Of 100 serums from human cases of tularæmia, 37 showed cross agglutination which, in three instances, reached the same titer for the three organisms, while the remaining 63 serums, some of which were of high anti-*tularensis* titer, failed to show any cross agglutination; (2) anti-*tularensis* serums of rabbit, sheep, horse, and rooster showed cross agglutination which, in one instance (sheep), reached the same titer for *abortus* and *tularensis*, but, as a rule, the cross agglutination titers were not only much lower than the *tularensis* titers but were slower in developing in the water bath.

Cross agglutination of *tularensis* was noted (1) by three of eight serums from cases of undulant fever, but the degree of cross agglutination was small; (2) by three serums of rabbits immunized against *abortus* and by the serum of a rabbit immunized against *melitensis*.

Agglutinin absorption tests with serums from four cases of tularæmia and serums of three anti-*tularensis* animals (rabbit, sheep, and rooster) resulted as follows: (1) After absorption by *tularensis*, they failed to agglutinate *tularensis*, *abortus*, and *melitensis*; (2) after absorption by *abortus* they failed to agglutinate *abortus* and *melitensis*, but agglutinated *tularensis* to the original *tularensis* titer of the unabsorbed serum; (3) after absorption by *melitensis* they failed to agglutinate *melitensis*, agglutinated *tularensis* to the titer of the

unabsorbed serum, and varied in their behavior toward *abortus* as follows. One human case and one rooster failed to agglutinate *abortus*; in the rabbit the titer for *abortus* was reduced to only 50 per cent; in the sheep the titer for *abortus* was reduced to 12.5 per cent; and in one human serum the titer for *abortus* was reduced to 6 per cent.

Reciprocal agglutinin absorption tests carried out with three strains of *tularensis* isolated in the United States and one strain isolated from human virulent tissue received from Japan showed no difference between the strains.

Reciprocal agglutinin absorption tests carried out with a culture of *tularensis*, a culture of *abortus*, a culture of *melitensis*, and their antisera prepared from rabbits resulted as follows: (1) *Tularensis* was readily differentiated from *abortus* and from *melitensis*; (2) *abortus* was readily differentiated from *melitensis*; and (3) an unexpected development was that the *tularensis* serum differentiated *abortus* and *melitensis*, reacting as an *abortus* serum. The same tendency to react as an *abortus* serum was noted in the absorption reactions of one human *tularensis* serum.

#### CONCLUSIONS

The conclusions reached are—(1) That, on account of the frequent cross agglutination between *tularensis*, on the one hand, and *abortus* and *melitensis*, on the other, sera from suspected cases of tularemia and undulant fever should be tested for agglutination of *tularensis* and either *abortus* or *melitensis*, unless the clinical history points definitely to a recognized source of infection for tularemia or undulant fever.

(2) That a serum which shows a marked difference in titer for *tularensis*, on the one hand, and for *abortus* or *melitensis*, on the other, can usually be classed by the higher titer as due either to tularemia or to one of the varieties of *Brucella melitensis*.

(3) That a serum which agglutinates all three organisms to the same or nearly the same titer should be subjected to agglutinin absorption tests.

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#### CURRENT WORLD PREVALENCE OF DISEASE

REVIEW OF THE MONTHLY EPIDEMIOLOGICAL REPORT ISSUED APRIL 15, 1926, BY THE HEALTH SECTION OF THE LEAGUE OF NATIONS' SECRETARIAT<sup>1</sup>

An outbreak of influenza occurred in England and Wales toward the end of March; it reached its maximum in the second week of April and rapidly diminished in the succeeding two weeks. This is the second outbreak to occur in England during the past winter, the former outbreak having occurred in December. The Epidemiological

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<sup>1</sup> From the Office of Statistical Investigations, U. S. Public Health Service.

Report notes that "the interval between the outbreak which took place at the beginning of December and the present one has been of 16 weeks, which is exactly the interval between maxima of the epidemics of July, 1908, November, 1918, and March, 1919." During the recent outbreak the general mortality in 105 towns in England and Wales rose from 12.8 per 1,000 in the week ended March 20, to 15.0\* in the week ended April 10, and the deaths from influenza increased from 136 in the week ended March 20, to 302 in the week ended April 17. The increase in mortality was not so sharp as that which accompanied the December outbreak, when the death rate in the towns rose to 17.9 per 1,000.

Glasgow, Scotland, suffered severely from an influenza outbreak at the time when England was affected, and the general mortality rate rose to the high point of 30 per 1,000 in the week ended April 3, considerably higher than for any week during the December outbreak. Edinburgh gave no indication of any unusual prevalence of influenza in March or April, although it is less than 50 miles from Glasgow.

*General mortality and deaths from influenza in 105 towns in England and Wales, in London, and in Glasgow*

Week ended—	Deaths in 105 towns		Deaths in London		Deaths in Glasgow	
	All causes, rate per 1,000	Number from influenza	All causes, rate per 1,000	Number from influenza	All causes, rate per 1,000	Number from influenza
March 20.....	12.8	136	13.1	—	18.1	—
27.....	13.9	186	13.9	27	23.7	24
April 3.....	15.0	223	15.2	48	31.0	67
10.....	15.1	234	15.3	74	28.6	81
17.....	14.3	302	14.3	59	22.8	45
24.....	13.2	209	12.8	35	17.9	20
May 1.....	12.6	166	12.6	28	16.7	13

The reports available from the large continental European towns for March and the early part of April did not indicate any general increase in influenza coincident with that in England.

Influenza deaths and the general mortality declined during April in the United States. The peak of the influenza outbreak was reached in the week ended March 27, when the death rate from all causes for 68 large cities was 19.4 per 1,000, after which a continuous decline in mortality was reported. The death rate for the 68 cities had dropped to 14.4 per 1,000 during the week ended May 1.

*Plague.*—The number of plague deaths in India during February was nearly double that reported for the previous four weeks. About 60 per cent occurred in the eastern section of the Punjab and in the United Provinces, "where the season of maximum incidence is April and March, respectively." The total deaths numbered slightly more than in February, 1925. "The rainfall, which had been deficient



during the previous months throughout Northern India," says the Report, "exceeded the normal in the United Provinces and the Eastern Punjab during February and the beginning of March. High atmospheric humidity at this season of the year in these areas is favorable to the extension of plague."

*Deaths from plague in the Provinces of India*

Province	1926		1925
	Jan. 3-30	Jan. 31-Feb. 27	Feb. 1-28
North-West Frontier.....	0	1	16
Punjab.....	1,805	5,217	3,644
Delhi.....	3	3	28
United Provinces.....	2,754	4,752	5,468
Bihar and Orissa.....	597	967	1,218
Bengal.....	0	0	0
Assam.....	0	0	0
Central Provinces.....	481	998	1,071
Madras Presidency.....	341	346	407
Hyderabad State.....	348	738	605
Mysore.....	457	462	71
Bombay Presidency.....	751	1,080	853
Burma.....	575	708	470
Other Indian States.....	608	1,683	609
Total.....	8,682	16,955	14,518

Java reported 1,094 plague deaths during February, which was approximately 400 fewer than in the preceding four weeks. "A continued decline may be expected up to June, which is, as a rule, the month of minimum incidence," states the report.

Plague was less prevalent in Siam and in French Indo-China during the first quarter of the year than in the corresponding season of 1925, only a few cases having been reported in each country.

Plague reappeared in Iraq in December, and during the first 10 weeks of the current year there were 78 cases and 48 deaths reported at Bagdad.

During March, Egypt reported 8 cases of plague, one at Alexandria, one at Suez, one in Minia Province, and 5 in Gharbia Province. These are the first cases reported in Egypt this year.

Four cases of plague were reported in Greece during March, one at Zante, one at Chios, and two at Heraclion.

Russia reported 28 plague deaths in the Uralsk-Boukeiev Government in the period from February 16 to March 16.

The Epidemiological Report makes the following comment concerning plague in Africa:

Madagascar, Kenya, and Uganda have recently been the most important plague centers in East Africa. Mauritius and the Tanganyika Territory have been free from plague for several months. There were 186 plague cases reported in Madagascar during March, against a maximum of 400 cases in December; June is usually the month of lowest incidence in that island. In Kenya and

Uganda the seasonal fluctuations are more irregular, but there is, nevertheless, a definite tendency toward a seasonal maximum between June and September. There were 97 plague cases reported in Kenya during February, as against 49 in the preceding month and 23 during the corresponding month of 1925. In Uganda there were 109 plague cases in January, as against 29 during the corresponding month of the preceding year.

Human plague cases were again reported during March in the Union of South Africa, but the outbreak was confined to a small area in the Orange Free State.

Ecuador reported 16 plague cases at Guayaquil during February, compared with 34 in January.

*Cholera.*—Cholera cases increased markedly during March in Siam and in French Indo-China. The number of cases in Siam rose from 285 in the two weeks ended February 27 to 838 in the two weeks ended March 13. In French Indo-China an epidemic started in January in Cambodia, and during February 958 cases were reported. The disease spread rapidly and in March 1,666 cases were reported, with Cochinchina also heavily infected.

In India, 6,532 deaths from cholera were reported in February, approximately the same number as in the preceding four weeks. No extension of the infected area took place, but the number of cases in Bengal and the neighboring districts of Bihar increased, while the outbreak in the southern part of Madras Presidency began to decline.

*Cholera cases in the principal ports of the Far East from March 14 to April 24, 1926*

City	Week ended—					
	Mar. 20	Mar. 27	Apr. 3	Apr. 10	Apr. 17	Apr. 24
Calcutta (deaths).....	45	48	30	—	46	—
Madras (deaths).....	4	9	4	1	0	0
Rangoon (deaths).....	2	1	2	4	6	4
Bangkok.....	84	90	91	102	92	107
Suigon and Cholon.....	0	2	13	21	46	23
Singapore.....	0	0	0	0	1	0

*Typhus and relapsing fever.*—Russia generally reported a lower incidence of both typhus and relapsing fever during the fourth quarter of 1925 than during the corresponding quarter of 1924. The figures for each geographical area are shown in the accompanying table.

The following data on typhus and relapsing fever in the remainder of Europe are given in the Report:

In Poland there were 540 typhus cases during the four weeks ended March 20, as against 500 during the preceding four weeks and 739 during the corresponding period of 1925. Practically all the cases occurred in the eastern provinces. No case of relapsing fever was reported during the period under review; 324 typhus cases were reported during January in Rumania; there were 231 cases during the corresponding month of the previous year. Small typhus outbreaks occurred in Bulgaria and in the Kingdom of the Serbs, Croats, and Slovenes. Only 5 cases of relapsing fever have been reported during the first quarter of the current year in the whole of Europe outside Russia.

*Cases of typhus and relapsing fever reported in Russia during the fourth quarter of 1924 and 1925*

Geographical area	Typhus fever		Relapsing fever	
	1924	1925	1924	1925
North-Eastern.....	539	283	12	5
North-Western.....	564	273	61	61
Western.....	651	303	29	66
Central Industrial.....	2,706	1,360	284	105
Central Black Soil.....	718	749	385	414
Middle Volga.....	749	408	262	101
Lower Volga.....	387	253	480	410
Viatka-Vieluga.....	410	156	19	40
Ural.....	148	117	335	137
North Caucasus.....	161	117	302	343
Ukraine.....	1,412	1,760	416	474
Crimta.....	43	19	6	124
Transcaucasia.....	99	153	61	189
Asiatic Russia.....	617	1,177	417	176
Railways, waterways.....	256	228	76	102
Total.....	9,460	6,251	3,145	2,537

<sup>1</sup> Incomplete data

In the first quarter of 1926 Tunisia reported 180 cases of typhus fever, Algeria 89 cases, and the French Protectorate of Morocco 270 cases.

*Smallpox.*—A severe epidemic of smallpox occurred in India, in the Province of Orissa, at the beginning of the current year. In two districts, Puri and Cuttack, there were 15,752 cases and 3,088 deaths from smallpox reported during the first eight weeks of the year. In southern India, on the contrary, smallpox was less prevalent than during the early months of 1925.

The incidence of smallpox in England and Wales has been declining since February. During the four weeks ended April 10 there were 687 cases reported, compared with 945 in the preceding four weeks.

*Typhoid fever and dysentery.*—"Following the very low incidence of typhoid fever which prevailed throughout Europe at the end of 1925 and the beginning of 1926, a slight increase occurred in certain countries of western and central Europe during February and March," states the Report.

*Cases of typhoid fever reported in various countries during the first quarter of 1926*

Four weeks ended—	England and Wales	Germany	Netherlands	Belgium <sup>1</sup>
Jan. 30.....	133	360	63	42
Feb. 27.....	159	426	95	73
Mar. 27.....	179	381	71	59

<sup>1</sup> Monthly data.

"A similar increase of dysentery cases took place during February in Germany and Poland. The incidence of both diseases continued to diminish as usual during the winter months in Eastern, Southern, and the remainder of Central Europe."

In Japan there were 9,953 typhoid fever cases reported during the first 10 weeks of the year, as compared with 6,808 cases in the corresponding period of 1925. In March the incidence was returning to a normal level.

*Lethargic encephalitis.*—The incidence of lethargic encephalitis shows no marked change during the first quarter in any of the countries which report on this disease. The number of cases reported during the first quarter of 1926 are compared with the cases in the corresponding period of 1925 in the following table:

*Cases of lethargic encephalitis notified in various countries, January–March, 1925 and 1926*

Four weeks ended—	England and Wales		Scotland, 16 cities		Netherlands		Switzerland		Italy		United States, 27 States	
	1925	1926	1925	1926	1925	1926	1925	1926	1925	1926	1925	1926
Jan. 23.....	185	185	21	19	8	6	5	2	30	32	107	44
Feb. 20.....	223	223	26	19	6	4	4	1	63	28	86	41
Mar. 20.....	240	186	29	26	26	12	20	4	97	40	62	48

Month	Sweden		Denmark		Belgium		Czechoslovakia	
	1925	1926	1925	1926	1925	1926	1925	1926
January.....	14	12	19	7	16	0	14	4
February.....	17	13	22	2	15	5	25	10
March.....	22	20	23	8	6	3	40	6

*Anthrax.*—The following data on the prevalence of anthrax is taken from the Report:

*Anthrax cases and deaths reported in various countries during 1924 and 1925*

Country	Cases or deaths <sup>1</sup>	Total 1924	1925					
			Total	First quarter	Second quarter	Third quarter	Fourth quarter	
AMERICA								
United States (27 States).....	C	-----	45	18	12	9	6	
Uruguay.....	C	103	132	57	43	15	17	
ASIA								
Iraq.....	{	C	4	10	2	2	1	5
		D	2	1	0	0	0	1
Australia.....	C	4	3	2	0	0	1	
EUROPE								
Germany.....	C	118	166	42	44	50	30	
Austria.....	{	C	7	12	2	4	3	3
		D	2	2	0	0	2	0
Denmark.....	C	8	3	1	0	0	2	
Hungary.....	D	84	68	18	21	12	17	
Italy.....	C	2,728	1,666	222	245	689	500	

<sup>1</sup> C = Cases, D = Deaths.

<sup>2</sup> Data for 11 months only.

<sup>3</sup> Data for 2 months only.

*Anthrax cases and deaths reported in various countries during 1924 and 1925—Continued*

Country	Cases or deaths	Total 1924	1925				
			Total	First quarter	Second quarter	Third quarter	Fourth quarter
EUROPE—continued							
Lithuania.....	{ C	14	5	0	1	3	1
	{ D	3	1	0	0	1	0
Poland.....	{ C	69	74	14	16	33	6
	{ D	17	11	2	3	3	3
Russia:							
European Russia.....	C	8, 178	7, 077	1, 173	1, 432	3, 601	871
Ukraine.....	C	5, 392	5, 041	864	845	2, 172	1, 160
Transcaucasia.....	C	396	872	95	107	316	354
Siberia.....	C	535	175	52	24	86	13
Far Eastern Republic.....	C	28	11	2	4	5	0
Central Asia.....	C	617	585	38	14	533	—
Waterways, railways, and prisons.....	C	174	86	14	18	27	27
Total Russia.....	C	15, 320	13, 847	2, 238	2, 444	6, 740	2, 425
Kingdom of the Serbs, Croats, and Slovenes.....	{ C	—	498	57	99	200	142
	{ D	—	70	10	11	29	20
Switzerland.....	{ C	2	6	0	3	3	0
	{ D	67	47	8	11	22	6
Czechoslovakia.....	{ D	7	4	2	0	0	2

*Tuberculosis.*—Some interesting data on the decline in tuberculosis mortality during 1925 in many of the large cities of Europe and other parts of the world are presented in the April number of Epidemiological Report, from which the figures in the table below have been taken. The decrease in deaths from tuberculosis as compared with 1924 has been greatest in the cities in Eastern and Central Europe. A few European cities and a number of those outside Europe showed no improvement over 1924 or even a higher death rate.

*Mortality from tuberculosis (all forms) in various cities in 1925 and the per cent increase or decrease over 1924*

City	Population in 1925, in thousands	Death rate per 100,000	Per cent increase or decrease
EUROPE			
Cracow.....	196	220	-35.7
Budapest.....	961	291	-26.9
Bologna.....	224	169	-20.3
Trieste.....	249	281	-17.1
Berlin.....	4, 014	121	-16.6
Copenhagen.....	587	108	-15.6
Venice.....	201	207	-15.5
Hamburg.....	1, 079	114	-13.6
Oslo.....	258	167	-13.2
Brussels.....	818	136	-11.7
Cologne.....	727	121	-11.7
30 Swiss cities.....	1, 166	125	-10.7
Dresden.....	619	123	-10.2
Stockholm.....	439	154	-9.9
Madrid.....	783	253	-8.0
London.....	4, 602	107	-7.8
Glasgow.....	1, 057	134	-7.6
Leningrad.....	1, 085	284	-7.5
Seville.....	211	406	-7.1
Brunn.....	222	233	-6.8

*Mortality from tuberculosis (all forms) in various cities in 1925 and the per cent increase or decrease over 1924—Continued*

City	Population in 1925, in thousands	Death rate per 100,000	Per cent increase or decrease
<b>EUROPE—continued</b>			
Breslau.....	555	131	-6.4
Rotterdam.....	548	110	-0.0
Munich.....	681	117	-5.6
Barcelona.....	739	185	-4.1
Belfast.....	438	172	-3.4
Tallinn.....	127	274	-3.2
The Hague.....	394	87	-2.2
Valencia.....	260	180	-2.2
Moscow.....	1,835	157	-1.9
Paris.....	2,906	280	-1.1
Amsterdam.....	718	97	0
Edinburgh.....	427	133	0
Prague.....	713	174	0
Strasburg.....	167	236	0
Genoa.....	335	219	+2.3
Lille.....	201	252	+3.7
Milan.....	722	191	+4.4
Lodz.....	527	293	+4.6
Dublin.....	438	185	+5.8
Vienna <sup>1</sup> .....	1,870	204	+14.0
Lyons.....	562	261	+14.5
Pilsen.....	108	241	+18.7
Sofia <sup>2</sup> .....	154	<sup>2</sup> 419	+10.4
<b>AMERICA</b>			
Sao Paulo.....	880	107	+2.9
Montevideo <sup>1,2</sup> .....	423	<sup>2</sup> 272	+3.8
Havana <sup>2</sup> .....	399	<sup>2</sup> 262	+5.0
Buenos Aires <sup>2</sup> .....	1,856	198	+20.7
<b>AFRICA</b>			
Alexandria.....	487	146	-7.0
Cairo.....	819	118	+5.4
<b>ASIA</b>			
Manila.....	308	368	-40.3
Bombay <sup>2,4</sup> .....	1,259	<sup>2</sup> 94	-22.3
Singapore.....	380	317	+3.9
Madras <sup>2,4</sup> .....	527	<sup>2</sup> 284	+9.2
Calcutta <sup>2,4</sup> .....	1,077	<sup>2</sup> 228	+15.2
Rangoon <sup>2,4</sup> .....	340	<sup>2</sup> 434	+24.0

<sup>1</sup> Data for eleven months.<sup>2</sup> Pulmonary tuberculosis only.<sup>3</sup> Data for 10 months.<sup>4</sup> Data for 51 weeks.<sup>5</sup> Data for 49 weeks.

## SMALLPOX AND VACCINATION IN LOS ANGELES, CALIF.

Dr. George Parrish, health commissioner of Los Angeles, Calif., has compiled the following data regarding 1,220 cases of smallpox which occurred in Los Angeles from July 1, 1925, to May 1, 1926.

Number vaccinated in childhood or infancy <sup>1</sup> .....	122
Number vaccinated too long ago to be immune <sup>2</sup> .....	33
Number vaccinated after exposure (too late).....	113
Number never successfully vaccinated.....	952
Total number of cases reported.....	1,220

<sup>1</sup> Ages of patients who were vaccinated in infancy varied from 18 to 75 years.<sup>2</sup> Time from vaccination to onset of disease varied from 6 to 55 years. Ages of patients varied from 21 to 79 years.

The vaccination histories of the patients who died were as follows:

Never vaccinated.....	144
Vaccinated after exposure.....	5
Vaccinated more than 20 years before onset of disease.....	15
Total.....	164

During the epidemic three cases presented fairly good evidence that they had previously had smallpox—one 33 years before onset of the disease, one 30 years, and one 13 years before.

### PATIENTS IN HOSPITALS FOR FEEBLE-MINDED

Reports have been received by the Public Health Service from 20 institutions for the care of feeble-minded persons, located in 13 States. The data given below are for the month of March, 1926. The number of patients in these institutions on March 1, was 13,013, including those on temporary leave; on March 31, there were 13,060 patients, a gain of 0.36 per cent. The increase in the number of patients on temporary leave (35) equals three-fourths of the increase in the number of patients (47). The average number of patients on temporary leave was 632, or 4.8 per cent of the total. Forty-eight and one-tenth per cent of the patients were males and 51.9 per cent were females; 17 patients were discharged during the month and 30 died; 9 patients were reported as transferred to institutions not included in the table.

#### Patients on books 1st day of month:

In institution.....	12, 398
On temporary leave.....	615
Total.....	13, 013

#### Admitted during month:

First admissions.....	97
Readmissions.....	6
Total received during month.....	103
Total in institution during month.....	13, 116

Discharged or placed on indefinite parole during month.....	17
Transferred to other institutions.....	9
Died during month.....	30
Total discharged, transferred, and died.....	56

#### Patients on books last day of month:

In institutions.....	12, 410
On temporary leave.....	650
Total.....	13, 060
Males.....	6, 283
Females.....	6, 777

## DEATHS DURING WEEK ENDED JUNE 12, 1926

Summary of information received by telegraph from industrial insurance companies for week ended June 12, 1926, and corresponding week of 1925. (From the Weekly Health Index, June 17, 1926, issued by the Bureau of the Census, Department of Commerce)

	Week ended June 12, 1926	Corresponding week 1925
Policies in force .....	59, 810, 573	60, 189, 649
Number of death claims .....	12, 130	12, 660
Death claims per 1,000 policies in force, annual rate ..	10. 6	11. 0

Deaths from all causes in certain large cities of the United States during the week ended June 12, 1926, infant mortality, annual death rate, and comparison with corresponding week of 1925. (From the Weekly Health Index, June 17, 1926, issued by the Bureau of the Census, Department of Commerce)

City	Week ended June 12, 1926		Annual death rate per 1,000 corresponding week 1925	Deaths under 1 year		Infant mortality rate, week ended June 12, 1926 <sup>1</sup>
	Total deaths	Death rate <sup>1</sup>		Week ended June 12, 1926	Corresponding week, 1925	
Total (66 cities) .....	6, 906	12. 4	15. 3	785	924	<sup>2</sup> 62
Albany <sup>4</sup> .....	43	18. 8	19. 9	2	7	42
Atlanta .....	75			10	14	
White .....	36			5		
Colored .....	39	( <sup>5</sup> )		5		
Baltimore <sup>4</sup> .....	195	12. 6	22. 1	11	26	32
White .....	156			7		25
Colored .....	39	( <sup>5</sup> )		4		65
Birmingham .....	65	16. 1	23. 6	9	13	
White .....	34			5		
Colored .....	31	( <sup>5</sup> )		3		
Boston .....	198	13. 1	16. 2	28	22	79
Bridgeport .....	25			0	2	0
Buffalo .....	159	15. 2	16. 5	22	20	92
Cambridge .....	28	12. 0	18. 3	3	6	50
Camden .....	24	9. 6	18. 2	3	7	51
Canton .....	26	12. 3	11. 3	2	2	44
Chicago <sup>4</sup> .....	615	10. 5	11. 7	65	59	58
Cincinnati .....	120	15. 2	16. 2	8	2	50
Cleveland .....	188	10. 2	9. 2	30	20	78
Columbus .....	71	13. 0	13. 4	8	9	73
Dallas .....	69	18. 0	14. 0	12	13	
White .....	49			10		
Colored .....	20	( <sup>5</sup> )		2		
Dayton .....	45	13. 3	11. 2	4	2	63
Denver .....	68	12. 4	13. 7	7	3	
Des Moines .....	42	15. 0	7. 4	5	3	83
Detroit .....	329	13. 3	10. 3	50	46	80
Duluth .....	23	10. 6	10. 4	3	5	70
El Paso .....	35	16. 7	27. 3	13	16	
Erie .....	31			4	4	76
Fall River <sup>4</sup> .....	37	14. 7	10. 0	6	7	87
Flint .....	28	10. 7	6. 4	2	3	33
Fort Worth .....	25	8. 2	9. 6	3	4	
White .....	20			3		
Colored .....	5	( <sup>5</sup> )		0		
Grand Rapids .....	18	6. 0	12. 6	0	2	0
Houston .....	61			7	8	
White .....	38			5		
Colored .....	13	( <sup>5</sup> )		2		
Indianapolis .....	104	14. 8	10. 0	13	3	95
White .....	83			6		51
Colored .....	21			7		385
Jersey City .....	70	11. 5	17. 0	9	15	64

<sup>1</sup> Annual rate per 1,000 population.

<sup>2</sup> Deaths under 1 year per 1,000 births. Cities left blank are not in the registration area for births.

<sup>3</sup> Data for 63 cities.

<sup>4</sup> Deaths for week ended Friday June 11, 1926.

<sup>5</sup> In the cities for which deaths are shown by color, the colored population in 1920 constituted the following percentages of the total population: Atlanta 31, Baltimore 15, Birmingham 39, Dallas 15, Fort Worth 14, Houston 28, Kansas City, Kans., 14, Louisville 17, Memphis 28, Nashville 30, New Orleans 20, Norfolk 35, Richmond 32, and Washington, D. C., 26.



Deaths from all causes in certain large cities of the United States during the week ended June 12, 1926, infant mortality, annual death rate, and comparison with corresponding week of 1925. (From the Weekly Health Index, June 17, 1926, issued by the Bureau of the Census, Department of Commerce)—Continued

City	Week ended June 12, 1926		Annual death rate per 1,000 corresponding week 1925	Deaths under 1 year		Infant mortality rate, week ended June 12, 1926
	Total deaths	Death rate		Week ended June 12, 1926	Corresponding week, 1925	
Kansas City, Kans.	30	13.4	13.0	5	5	87
White.	23			4		84
Colored.	7	( <sup>5</sup> )		1		131
Kansas City, Mo.	91	12.7	9.5	9	16	
Los Angeles.	214			21	31	58
Louisville.	73	12.2	12.1	8	11	69
White.	55			6		60
Colored.	18	( <sup>5</sup> )		2		125
Lowell.	29			2	3	37
Lynn.	23	11.5	10.6	2	1	50
Memphis.	99	29.2	19.7	9	10	
White.	54			5		
Colored.	45	( <sup>5</sup> )		4		
Milwaukee.	127	12.8	10.8	17	11	79
Minneapolis.	111	13.3	10.3	12	12	67
Nashville.	54	20.6	16.1	6	7	
White.	27			4		
Colored.	27	( <sup>5</sup> )		2		
New Bedford.	40			10	4	174
New Haven.	38	10.9	12.5	4	1	55
New Orleans.	120	16.2	17.2	15	22	
White.	72			10		
Colored.	57	( <sup>5</sup> )		5		
New York.	1,350	11.7	18.2	158	208	64
Bronx Borough.	169	9.8	16.0	15	18	50
Brooklyn Borough.	445	10.4	16.1	66	83	67
Manhattan Borough.	570	16.0	23.1	67	89	74
Queens Borough.	107	7.3	13.7	7	15	32
Richmond Borough.	38	12.0	20.7	3	3	53
Newark, N. J.	88	10.0	16.7	7	18	33
Norfolk.	32	9.6	9.9	1	6	19
White.	15			0		6
Colored.	17	( <sup>5</sup> )		1		50
Oakland.	46	9.2	10.5	6	7	69
Oklahoma City.	25			3	3	
Omaha.	53	12.8	14.0	5	3	52
Patterson.	30	10.9	18.0	6	6	104
Philadelphia.	436	11.3	23.9	49	38	65
Pittsburgh.	172	14.1	14.9	24	26	80
Portland Oreg.	57			2	7	20
Providence.	54	10.2	16.5	9	11	75
Richmond.	49	13.5	11.2	3	5	38
White.	29			2		39
Colored.	20	( <sup>5</sup> )		1		35
Rochester.	101	16.4	14.3	10	11	80
St. Louis.	193	12.1	12.2	12	19	
St. Paul.	60	12.6	15.3	5	6	44
Salt Lake City.	32	12.5	13.1	5	7	69
San Antonio.	79	20.1	16.8	25	16	
San Diego.	40	19.0	15.7	2	3	42
San Francisco.	142	13.1	13.4	7	5	42
Schenectady.	23	12.9	15.7	2	5	58
Seattle.	67			3	6	28
Somerville.	10	5.2	17.9	0	8	0
Spokane.	34	16.3	16.8	0	2	0
Springfield, Mass.	33	11.9	18.4	3	10	43
Syracuse.	52	14.7	10.0	7	2	88
Tacoma.	25	12.3	12.0	3	2	70
Toledo.	65	11.5	12.2	5	7	43
Trenton.	24	9.3	27.3	0	0	0
Utica.	32	16.2	11.8	2	3	44
Washington, D. C.	148	14.6	14.8	12	10	68
White.	88			6		50
Colored.	60	( <sup>5</sup> )		6		109
Waterbury.	31			2	4	43
Wilmington, Del.	29	12.2	16.7	3	3	70
Worcester.	45	12.2	11.5	4	5	46
Yonkers.	22	9.9	10.1	2	2	45
Youngstown.	26	8.2	7.2	3	3	38

For footnotes 4 and 5, see p. 1304

# PREVALENCE OF DISEASE

*No health department, State or local, can effectively prevent or control disease without knowledge of when, where, and under what conditions cases are occurring*

## UNITED STATES

### CURRENT WEEKLY STATE REPORTS

These reports are preliminary and the figures are subject to change when later returns are received by the State health officers

#### Reports for Week Ended June 19, 1926

ALABAMA		CALIFORNIA	
	Cases		Cases
Chicken pox.....	27	Cerebrospinal meningitis:	
Diphtheria.....	1	Pacific Grove.....	1
Influenza.....	9	Stockton.....	3
Lethargic encephalitis.....	1	Chicken pox.....	169
Malaria.....	40	Diphtheria.....	76
Measles.....	265	Influenza.....	7
Mumps.....	33	Leprosy.....	1
Pellagra.....	23	Measles.....	425
Pneumonia.....	20	Mumps.....	135
Polio myelitis.....	1	Scarlet fever.....	126
Scarlet fever.....	3	Smallpox.....	11
Smallpox.....	4	Typhoid fever.....	11
Tuberculosis.....	35	Whooping cough.....	76
Typhoid fever.....	38		
Whooping cough.....	37		
ARIZONA		COLORADO	
	Cases		Cases
Chicken pox.....	2	Cerebrospinal meningitis.....	1
Diphtheria.....	3	Chicken pox.....	63
Influenza.....	1	Diphtheria.....	25
Measles.....	2	German measles.....	7
Pneumonia.....	2	Impetigo contagiosa.....	1
Scarlet fever.....	6	Influenza.....	1
Tuberculosis.....	19	Measles.....	37
Typhoid fever.....	11	Mumps.....	1
		Rocky Mountain spotted fever.....	2
		Scarlet fever.....	20
		Smallpox.....	3
		Tuberculosis.....	26
		Vincent's angina.....	1
		Whooping cough.....	39
ARKANSAS		CONNECTICUT	
	Cases		Cases
Chicken pox.....	17	Cerebrospinal meningitis.....	2
Diphtheria.....	3	Chicken pox.....	92
Hookworm disease.....	1	Diphtheria.....	15
Influenza.....	13	Favus.....	1
Malaria.....	61	German measles.....	19
Measles.....	26	Influenza.....	2
Mumps.....	3	Measles.....	349
Ophthalmia neonatorum.....	2	Mumps.....	8
Pellagra.....	24	Pneumonia (broncho).....	24
Scarlet fever.....	16	Pneumonia (lobar).....	38
Smallpox.....	2		
Trachoma.....	3		
Tuberculosis.....	4		
Typhoid fever.....	4		
Whooping cough.....	50		

CONNECTICUT—continued		IDAHO—continued	
	Cases		Cases
Scarlet fever.....	78	Mumps.....	3
Septic sore throat.....	1	Scarlet fever.....	1
Tuberculosis (all forms).....	44	Smallpox:	
Typhoid fever.....	3	Emmett.....	18
Whooping cough.....	53	Scattering.....	2
DELAWARE		Tuberculosis.....	2
Chicken pox.....	1	Typhoid fever.....	1
Diphtheria.....	6	Whooping cough.....	4
Measles.....	12	ILLINOIS	
Scarlet fever.....	2	Cerebrospinal meningitis:	
Tuberculosis.....	1	Cook County.....	1
Whooping cough.....	3	Knox County.....	1
DISTRICT OF COLUMBIA		St. Clair County.....	1
Chicken pox.....	16	Chicken pox.....	279
Diphtheria.....	8	Diphtheria.....	71
Measles.....	101	Influenza.....	19
Pellagra.....	1	Lethargic encephalitis—Macon County.....	1
Pneumonia.....	22	Measles.....	1,155
Scarlet fever.....	16	Mumps.....	42
Smallpox.....	2	Pneumonia.....	225
Tuberculosis.....	31	Polioomyelitis:	
Whooping cough.....	39	Champaign County.....	1
FLORIDA		Cook County.....	1
Cerebrospinal meningitis.....	2	Franklin County.....	1
Chicken pox.....	1	McDonough County.....	1
Diphtheria.....	6	Scarlet fever.....	257
German measles.....	1	Smallpox.....	38
Influenza.....	58	Tuberculosis.....	514
Malaria.....	13	Typhoid fever.....	12
Measles.....	25	Whooping cough.....	175
Mumps.....	4	INDIANA	
Pneumonia.....	161	Cerebrospinal meningitis.....	1
Polioomyelitis.....	1	Chicken pox.....	45
Scarlet fever.....	2	Diphtheria.....	8
Smallpox.....	42	Influenza.....	10
Tetanus.....	6	Measles.....	296
Tuberculosis.....	110	Pneumonia.....	4
Typhoid fever.....	16	Scarlet fever.....	65
Whooping cough.....	41	Smallpox.....	59
GEORGIA		Tuberculosis.....	54
Chicken pox.....	13	Whooping cough.....	72
Diphtheria.....	4	IOWA	
Dysentery.....	53	Chicken pox.....	14
Hookworm disease.....	4	Diphtheria.....	3
Influenza.....	2	German measles.....	16
Malaria.....	29	Measles.....	118
Measles.....	90	Mumps.....	6
Mumps.....	12	Polioomyelitis.....	2
Paratyphoid fever.....	2	Scarlet fever.....	38
Pellagra.....	19	Smallpox.....	9
Pneumonia.....	20	Tuberculosis.....	12
Polioomyelitis.....	1	Typhoid fever.....	1
Scarlet fever.....	2	Whooping cough.....	20
Septic sore throat.....	9	KANSAS	
Smallpox.....	15	Cerebrospinal meningitis.....	2
Tuberculosis.....	22	Chicken pox.....	34
Typhoid fever.....	45	Diphtheria.....	7
Typhus fever.....	2	Dysentery (amebic).....	1
Whooping cough.....	20	German measles.....	6
IDAHO		Influenza.....	30
Chicken pox.....	14	Measles.....	206
Diphtheria.....	7	Mumps.....	14
Measles.....	4		

KANSAS—continued		MASSACHUSETTS—continued	
	Cases		Cases
Tellagra.....	1	Measles.....	537
Pneumonia.....	61	Mumps.....	157
Polioomyelitis—Topeka (rural).....	1	Ophthalmia neonatorum.....	21
Scarlet fever.....	22	Pneumonia (lobar).....	61
Smallpox.....	8	Polioomyelitis.....	1
Tetanus.....	1	Scarlet fever.....	210
Tuberculosis.....	35	Trachoma.....	1
Typhoid fever.....	5	Tuberculosis (pulmonary).....	107
Whooping cough.....	116	Tuberculosis (other forms).....	26
		Typhoid fever.....	13
		Whooping cough.....	148
LOUISIANA			
Diphtheria.....	5		
Influenza.....	18	MICHIGAN	
Leprosy.....	1	Diphtheria.....	96
Malaria.....	17	Measles.....	879
Paratyphoid fever.....	1	Pneumonia.....	84
Pneumonia.....	35	Scarlet fever.....	285
Scarlet fever.....	4	Smallpox.....	8
Smallpox.....	2	Tuberculosis.....	39
Tuberculosis.....	39	Typhoid fever.....	9
Typhoid fever.....	23	Whooping cough.....	152
Whooping cough.....	17		
		MINNESOTA	
MAINE		Cerebrospinal meningitis.....	1
Cerebrospinal meningitis.....	1	Chicken pox.....	96
Chicken pox.....	14	Diphtheria.....	42
German measles.....	27	Influenza.....	1
Lethargic encephalitis.....	1	Lethargic encephalitis.....	1
Measles.....	124	Measles.....	588
Mumps.....	5	Pneumonia.....	4
Paratyphoid fever.....	1	Scarlet fever.....	234
Pellagra.....	2	Smallpox.....	4
Pneumonia.....	4	Tuberculosis.....	45
Scarlet fever.....	7	Whooping cough.....	41
Tuberculosis.....	2		
Typhoid fever.....	7	MISSISSIPPI	
Whooping cough.....	4	Diphtheria.....	4
		Scarlet fever.....	1
		Smallpox.....	3
		Typhoid fever.....	13
MARYLAND <sup>1</sup>		MISSOURI	
Chicken pox.....	67	(Exclusive of Kansas City)	
Diphtheria.....	16	Chicken pox.....	200
Dysentery.....	1	Diphtheria.....	51
German measles.....	4	Measles.....	260
Influenza.....	4	Mumps.....	8
Lethargic encephalitis.....	2	Scarlet fever.....	81
Measles.....	182	Smallpox.....	1
Mumps.....	81	Trachoma.....	2
Paratyphoid fever.....	3	Tuberculosis.....	36
Pellagra.....	2	Typhoid fever.....	14
Pneumonia (broncho).....	26	Whooping cough.....	75
Pneumonia (lobar).....	30		
Polioomyelitis.....	1		
Scarlet fever.....	62	MONTANA	
Septic sore throat.....	1	Cerebrospinal meningitis.....	3
Tuberculosis.....	51	Chicken pox.....	7
Typhoid fever.....	3	Diphtheria.....	19
Whooping cough.....	73	Measles.....	47
		Mumps.....	1
MASSACHUSETTS		Rocky Mountain spotted fever.....	3
Chicken pox.....	149	Scarlet fever.....	11
Conjunctivitis (suppurative).....	3	Smallpox.....	2
Diphtheria.....	60	Tuberculosis.....	1
German measles.....	250	Typhoid fever.....	3
Influenza.....	3		
Lethargic encephalitis.....	1		

<sup>1</sup> Week ended Friday.

NEBRASKA		OKLAHOMA	
	Cases		Cases
Chicken pox.....	20	(Exclusive of Oklahoma City and Tulsa)	
Diphtheria.....	3	Cerebrospinal meningitis—Pittsburg	
Measles.....	39	County.....	1
Mumps.....	4	Chicken pox.....	6
Pneumonia.....	1	Diphtheria.....	1
Scarlet fever.....	50	Influenza.....	21
Smallpox.....	19	Malaria.....	28
Tuberculosis.....	14	Measles.....	47
Typhoid fever.....	2	Pellagra.....	20
Whooping cough.....	29	Pneumonia.....	12
		Polomyelitis—Osage County.....	1
		Smallpox.....	7
		Typhoid fever.....	12
		Whooping cough.....	65
NEW JERSEY		OREGON	
Cerebrospinal meningitis.....	3	Cerebrospinal meningitis.....	2
Chicken pox.....	174	Chicken pox.....	14
Diphtheria.....	65	Diphtheria.....	13
Measles.....	671	Influenza.....	8
Pneumonia.....	65	Malaria.....	1
Polomyelitis.....	1	Measles.....	54
Rabies.....	1	Mumps.....	12
Scarlet fever.....	178	Pneumonia.....	17
Typhoid fever.....	6	Rocky Mountain spotted fever.....	2
Whooping cough.....	77	Scarlet fever.....	34
		Smallpox:	
		Portland.....	9
		Scattering.....	15
		Tuberculosis.....	13
		Typhoid fever.....	5
		Whooping cough.....	22
NEW MEXICO		PENNSYLVANIA	
Chicken pox.....	5	Chicken pox.....	275
Diphtheria.....	1	Diphtheria.....	155
Measles.....	8	German measles.....	60
Mumps.....	1	Impetigo contagiosa.....	8
Pneumonia.....	4	Measles.....	2,613
Rabies (in animals).....	1	Mumps.....	33
Scarlet fever.....	4	Ophthalmia neonatorum—Philadelphia.....	1
Smallpox.....	1	Pneumonia.....	27
Tuberculosis.....	59	Polomyelitis—York.....	1
Typhoid fever.....	6	Scarlet fever.....	452
Whooping cough.....	21	Smallpox.....	1
		Tetanus—Philadelphia.....	1
		Tuberculosis.....	183
		Typhoid fever.....	25
		Whooping cough.....	341
NEW YORK		SOUTH DAKOTA	
(Exclusive of New York City)		Chicken pox.....	1
Anthrax.....	1	Diphtheria.....	2
Cerebrospinal meningitis.....	1	Influenza.....	8
Chicken pox.....	238	Measles.....	7
Diphtheria.....	55	Polomyelitis.....	1
Dysentery.....	4	Scarlet fever.....	37
German measles.....	421	Smallpox.....	1
Influenza.....	3	Tetanus—Philadelphia.....	1
Lethargic encephalitis.....	5	Tuberculosis.....	183
Malaria.....	4	Typhoid fever.....	25
Measles.....	1,712	Whooping cough.....	341
Mumps.....	120		
Pneumonia.....	165		
Scarlet fever.....	140		
Septic sore throat.....	5		
Smallpox.....	7		
Trachoma.....	2		
Typhoid fever.....	5		
Vincent's angina.....	6		
Whooping cough.....	265		
NORTH CAROLINA		TENNESSEE	
Diphtheria.....	12	Cerebrospinal meningitis—Knox County.....	1
German measles.....	70	Chicken pox.....	6
Measles.....	385	Diphtheria.....	7
Polomyelitis.....	2	Dysentery.....	6
Scarlet fever.....	9	Influenza.....	6
Smallpox.....	36		
Typhoid fever.....	20		
Whooping cough.....	272		

<sup>1</sup> Deaths.

TENNESSEE—continued		WASHINGTON—continued	
	Cases		Cases
Lethargic encephalitis—Hamblen County.....	1	Smallpox.....	15
Malaria.....	17	Tuberculosis.....	25
Measles.....	171	Typhoid fever.....	4
Mumps.....	7	Whooping cough.....	38
Ophthalmia neonatorum.....	1		
Pellagra.....	22	WEST VIRGINIA	
Pneumonia.....	3	Chicken pox.....	17
Poliomyelitis:		Diphtheria.....	6
Dyer County.....	1	Influenza.....	2
Henderson County.....	1	Measles.....	578
Rabies.....	1	Scarlet fever.....	18
Scarlet fever.....	8	Smallpox.....	7
Smallpox.....	10	Trachoma.....	1
Tetanus.....	1	Tuberculosis.....	15
Trachoma.....	1	Typhoid fever.....	9
Tuberculosis.....	93	Whooping cough.....	35
Typhoid fever.....	16		
Whooping cough.....	26	WISCONSIN	
		Milwaukee:	
TEXAS		Cerebrospinal meningitis.....	1
Chicken pox.....	30	Chicken pox.....	107
Dengue.....	1	Diphtheria.....	6
Diphtheria.....	13	German measles.....	2
Dysentery.....	5	Measles.....	303
Influenza.....	9	Mumps.....	25
Measles.....	8	Pneumonia.....	7
Mumps.....	17	Scarlet fever.....	15
Pellagra.....	5	Tuberculosis.....	23
Pneumonia.....	6	Whooping cough.....	44
Scarlet fever.....	9	Scattering:	
Smallpox.....	8	Cerebrospinal meningitis.....	1
Tuberculosis.....	18	Chicken pox.....	51
Typhoid fever.....	14	Diphtheria.....	15
Whooping cough.....	48	German measles.....	91
		Influenza.....	15
UTAH		Measles.....	1,070
Chicken pox.....	25	Mumps.....	30
Diphtheria.....	9	Pneumonia.....	14
Measles.....	53	Poliomyelitis.....	1
Mumps.....	8	Scarlet fever.....	55
Pneumonia.....	3	Smallpox.....	1
Scarlet fever.....	3	Tuberculosis.....	25
Smallpox.....	1	Typhoid fever.....	2
Tuberculosis.....	1	Whooping cough.....	83
Whooping cough.....	108		
		WYOMING	
WASHINGTON		Chicken pox.....	13
Cerebrospinal meningitis:		German measles.....	3
Asotin County.....	1	Influenza.....	5
Spokane.....	2	Measles.....	8
Chicken pox.....	55	Rocky Mountain spotted fever:	
Diphtheria.....	10	Fremont County.....	2
German measles.....	31	Natrona County.....	1
Measles.....	88	Scarlet fever.....	14
Mumps.....	42	Smallpox.....	1
Scarlet fever.....	58	Typhoid fever.....	2
		Whooping cough.....	14

## Report for week ended June 12, 1926

NORTH DAKOTA		NORTH DAKOTA—continued	
	Cases		Cases
Chicken pox.....	4	Scarlet fever.....	54
Diphtheria.....	9	Smallpox.....	2
German measles.....	19	Tuberculosis.....	1
Measles.....	60	Whooping cough.....	26
Pneumonia.....	6		

## SUMMARY OF MONTHLY REPORTS FROM STATES

The following summary of monthly State reports is published weekly and covers only those States from which reports are received during the current week:

State	Cerebro-spinal meningitis	Diphtheria	Influenza	Malaria	Measles	Pellagra	Polio-myelitis	Scarlet fever	Smallpox	Typhoid fever
<i>May, 1926</i>										
Arkansas.....	0	7	153	123	268	85	0	92	35	19
District of Columbia.....	2	71	3	-----	1, 004	0	0	132	3	5
Louisiana.....	0	37	86	55	17	51	0	81	78	54
New Jersey.....	10	328	34	-----	6, 991	-----	4	828	0	21
North Dakota.....	0	28	-----	-----	126	-----	1	256	31	2
Tennessee.....	10	60	516	44	3, 154	136	0	170	147	61
Wisconsin.....	3	126	424	0	3, 021	0	0	459	15	14

## RODENT PLAGUE IN SAN BENITO COUNTY, CALIF.

A report dated June 5, 1926, states that 5 squirrels out of a total of 27 shipped from San Benito County, Calif., to the Public Health Service laboratory at San Francisco, have proved positive for bubonic plague.

## SMALLPOX IN CALIFORNIA, JANUARY TO APRIL, 1926

The Weekly Bulletin of the California State Board of Health dated May 15, 1926, gives the following summary of cases of smallpox and deaths from this disease during the four months ended April 30, 1926. The total number of cases of smallpox was 2,182; deaths, 208. Of these, 1,249 cases and 186 deaths occurred in Los Angeles County. Only 10 counties reported deaths from smallpox during the four months, and 5 of these had only one death each.

County	January		February		March		April	
	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases	Deaths
Alameda.....	70	-----	77	1	106	1	65	-----
Butte.....	-----	-----	-----	-----	-----	-----	4	-----
Colusa.....	-----	-----	5	-----	-----	-----	-----	-----
Contra Costa.....	8	-----	6	-----	6	-----	-----	-----
El Dorado.....	-----	-----	-----	-----	11	-----	-----	-----
Glenn.....	1	-----	-----	-----	-----	-----	-----	-----
Humboldt.....	-----	-----	-----	-----	-----	-----	1	-----
Imperial.....	-----	-----	4	-----	40	-----	3	-----
Kern.....	-----	-----	6	-----	12	2	4	-----
Los Angeles.....	275	28	445	70	400	46	129	42
Madera.....	1	-----	3	-----	-----	-----	-----	-----
Marin.....	-----	-----	-----	-----	1	-----	-----	-----
Mendocino.....	1	-----	-----	-----	6	-----	25	-----
Merced.....	2	-----	-----	-----	-----	-----	2	-----
Modoc.....	1	-----	-----	-----	-----	-----	-----	-----
Orange.....	5	-----	4	-----	5	-----	12	-----
Placer.....	12	-----	4	-----	6	-----	10	-----
Riverside.....	13	1	2	-----	2	-----	-----	-----
Sacramento.....	30	-----	34	-----	19	1	11	-----
San Bernardino.....	-----	-----	15	1	7	-----	1	-----
San Diego.....	-----	-----	4	-----	14	2	4	-----
San Francisco.....	4	1	24	6	25	1	24	1
San Joaquin.....	1	-----	-----	-----	4	-----	15	2
San Luis Obispo.....	2	-----	-----	-----	-----	-----	-----	-----
San Mateo.....	-----	-----	-----	-----	1	-----	1	-----
Santa Barbara.....	1	1	3	-----	2	-----	1	-----

County	January		February		March		April	
	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases	Deaths
Santa Clara.....	3	-----	6	-----	5	-----	10	-----
Santa Cruz.....	-----	-----	-----	-----	1	-----	-----	-----
Siskiyou.....	-----	-----	-----	-----	2	-----	-----	-----
Solano.....	5	-----	1	-----	-----	-----	7	-----
Sonoma.....	1	-----	3	-----	51	-----	-----	-----
Stanislaus.....	-----	-----	1	-----	9	-----	5	-----
Sutter.....	-----	-----	-----	-----	-----	-----	1	-----
Tulare.....	1	-----	-----	-----	2	1	2	-----
Ventura.....	2	-----	2	-----	1	-----	-----	-----
Yolo.....	1	-----	6	-----	6	-----	-----	-----
Yuba.....	2	-----	-----	-----	-----	-----	-----	-----
California.....	-----	-----	2	-----	2	-----	-----	-----
Total.....	442	31	657	78	745	54	337	45

### SMALLPOX IN FLORIDA, DECEMBER, 1925, TO MAY, 1926

The bureau of vital statistics of the State Board of Health of Florida has supplied the following data relative to cases of smallpox reported in the State of Florida during the six months ended May 31, 1926:

Location	Dec.	Jan.	Feb.	Mar.	Apr.	May	Total
State.....	65	322	558	782	407	269	2,403
Alachua County.....	-----	2	4	6	2	25	39
Brevard County.....	-----	10	1	4	-----	1	16
Citrus County.....	-----	-----	1	-----	-----	1	2
Clay County.....	-----	-----	10	2	4	1	17
Dade County, exclusive of Miami	-----	2	6	7	9	-----	24
Miami.....	25	82	130	185	25	6	459
Duval County, exclusive of Jacksonville	-----	-----	7	14	7	-----	28
Jacksonville.....	13	35	104	132	108	104	494
Escambia County.....	-----	1	4	2	-----	3	11
Franklin County.....	-----	-----	-----	-----	-----	1	1
Glades County.....	-----	-----	-----	2	-----	-----	2
Highlands County.....	-----	-----	-----	-----	-----	5	11
Hillsboro County, exclusive of Tampa	-----	10	-----	12	27	2	51
Tampa.....	13	122	120	112	68	31	466
Lake County.....	-----	-----	-----	-----	1	-----	1
Lee County.....	-----	-----	-----	2	-----	2	4
Madison County.....	-----	-----	-----	1	-----	-----	1
Marion County.....	-----	5	-----	6	-----	-----	11
Orlando.....	-----	-----	36	-----	1	1	38
Palm Beach County, exclusive of West Palm Beach	-----	3	4	4	2	-----	13
West Palm Beach.....	-----	-----	60	113	37	12	222
Pasco County.....	-----	6	1	15	3	-----	25
St. Petersburg.....	-----	-----	6	35	28	22	91
Polk County, exclusive of Lakeland	-----	-----	2	29	6	4	41
Lakeland.....	-----	-----	1	11	2	-----	14
St. Johns County.....	1	-----	3	23	-----	7	34
St. Lucie County.....	-----	3	4	22	-----	12	41
Sarasota County.....	-----	1	1	-----	-----	4	6
Seminole County.....	-----	1	-----	9	6	8	24
Volusia County.....	-----	1	-----	1	15	1	18
Washington County.....	-----	-----	-----	-----	1	3	4



**PLAGUE ERADICATIVE MEASURES IN LOS ANGELES, CALIF.**

The following items were taken from the report of plague eradication measures from Los Angeles, Calif.:

Week ended June 12, 1926:

Number of rats trapped.....	389
Number of rats found to be plague infected.....	0
Number of squirrels examined.....	747
Number of squirrels found to be plague infected.....	0
Number of mice trapped.....	262
Number of mice found to be plague infected.....	0

Date of discovery of last plague-infected rodent, Nov. 6, 1925.

Date of last human case, Jan. 15, 1925.

**GENERAL CURRENT SUMMARY AND WEEKLY REPORTS FROM CITIES**

*Diphtheria*.—For the week ended June 5, 1926, 35 States reported 932 cases of diphtheria. For the week ended June 6, 1925, the same States reported 1,345 cases of this disease. Ninety-seven cities, situated in all parts of the country and having an aggregate population of more than 30,120,000, reported 684 cases of diphtheria for the week ended June 5, 1926. Last year for the corresponding week they reported 870 cases. The estimated expectancy for these cities was 833 cases. The estimated expectancy is based on the experience of the last nine years, excluding epidemics.

*Measles*.—Thirty-three States reported 13,263 cases of measles for the week ended June 5, 1926, and 6,165 cases of this disease for the week ended June 6, 1925. Ninety-seven cities reported 5,783 cases of measles for the week this year and 3,398 cases last year.

*Poliomyelitis*.—The health officers of 36 States reported 14 cases of poliomyelitis for the week ended June 5, 1926. The same States reported 38 cases for the week ended June 6, 1925.

*Scarlet fever*.—Scarlet fever was reported for the week as follows: Thirty-five States—this year, 2,589 cases; last year, 2,845 cases; 97 cities—this year, 1,321 cases; last year, 1,462 cases; estimated expectancy, 885 cases.

*Smallpox*.—For the week ended June 5, 1926, 36 States reported 547 cases of smallpox. Last year for the corresponding week they reported 821 cases. Ninety-seven cities reported smallpox for the week as follows: 1926, 88 cases; 1925, 256 cases; estimated expectancy, 125 cases.

*Typhoid fever*.—Two hundred and forty-two cases of typhoid fever were reported for the week ended June 5, 1926, by 35 States. For the corresponding week of 1925, the same States reported 566 cases of this disease. Ninety-seven cities reported 54 cases of typhoid fever for the week this year and 137 cases for the corresponding week last year. The estimated expectancy for these cities was 71 cases.

*Influenza and pneumonia.*—Deaths from influenza and pneumonia were reported for the week by 91 cities, with a population of more than 29,400,000, as follows: 1926, 646 deaths; 1925, 744.

*City reports for week ended June 5, 1926*

The "estimated expectancy" given for diphtheria, poliomyelitis, scarlet fever, smallpox, and typhoid fever is the result of an attempt to ascertain from previous occurrence how many cases of the disease under consideration may be expected to occur during a certain week in the absence of epidemics. It is based on reports to the Public Health Service during the past nine years. It is in most instances the median number of cases reported in the corresponding week of the preceding years. When the reports include several epidemics or when for other reasons the median is unsatisfactory, the epidemic periods are excluded and the estimated expectancy is the mean number of cases reported for the week during nonepidemic years.

If reports have not been received for the full nine years, data are used for as many years as possible, but no year earlier than 1917 is included. In obtaining the estimated expectancy the figures are smoothed when necessary to avoid abrupt deviations from the usual trend. For some of the diseases given in the table the available data were not sufficient to make it practicable to compute the estimated expectancy.

Division, State, and city	Population July 1, 1925, estimated	Chicken pox, cases reported	Diphtheria		Influenza		Measles, cases reported	Mumps, cases reported	Pneumonia, deaths reported
			Cases, estimated expectancy	Cases reported	Cases reported	Deaths reported			
NEW ENGLAND									
Maine:									
Portland.....	75,333	1	1	0	0	0	95	1	5
New Hampshire:									
Concord.....	22,546	0	0	0	0	0	0	0	0
Manchester.....	83,097	0	1	0	0	0	18	0	0
Vermont:									
Barre.....	10,008	0	0	0	0	0	0	1	0
Massachusetts:									
Boston.....	779,620	25	50	13	3	1	96	41	15
Fall River.....	128,993	0	3	1	0	0	2	2	2
Springfield.....	142,065	0	2	2	0	0	6	1	1
Worcester.....	190,757	2	4	8	0	0	4	0	5
Rhode Island:									
Pawtucket.....	69,760	1	1	0	0	0	10	1	1
Providence.....	267,918	0	7	7	0	0	46	0	9
Connecticut:									
Bridgeport.....	(1)	7	5	2	0	0	3	0	2
Hartford.....	160,197	4	5	0	1	0	7	0	6
New Haven.....	178,927	8	3	0	1	0	39	1	3
MIDDLE ATLANTIC									
New York:									
Buffalo.....	538,016	8	10	0	0	0	23	1	17
New York.....	5,873,356	168	256	176	34	6	484	74	155
Rochester.....	316,786	10	6	6	0	0	48	1	5
Syracuse.....	182,003	12	6	2	0	0	366	9	4
New Jersey:									
Camden.....	128,642	3	3	7	0	0	19	0	6
Newark.....	452,513	51	13	5	2	0	89	8	7
Trenton.....	132,020	1	3	1	0	0	43	0	4
Pennsylvania:									
Philadelphia.....	1,979,364	66	62	61	-----	6	216	9	41
Pittsburgh.....	691,663	25	18	11	-----	1	185	3	21
Reading.....	112,707	2	3	1	-----	0	35	0	2
EAST NORTH CENTRAL									
Ohio:									
Cincinnati.....	409,333	11	7	8	0	0	179	0	12
Cleveland.....	936,485	47	18	30	0	0	37	6	11
Columbus.....	279,836	13	2	5	0	1	65	8	7
Toledo.....	287,380	27	5	3	0	0	299	0	6
Indiana:									
Fort Wayne.....	97,846	3	2	2	0	0	74	0	1
Indianapolis.....	358,919	4	4	1	0	0	27	1	13
South Bend.....	80,091	1	1	0	0	0	52	0	5
Terre Haute.....	71,071	0	1	0	0	0	10	0	1

1. No estimate made.

## City reports for week ended June 5, 1926—Continued

Division, State, and city	Population July 1, 1925, estimated	Chicken pox, cases reported	Diphtheria		Influenza		Measles, cases reported	Mumps, cases reported	Pneumonia, deaths reported
			Cases, estimated expectancy	Cases reported	Cases reported	Deaths reported			
EAST NORTH CENTRAL—continued									
Illinois:									
Chicago.....	2,095,239	137	87	60	3	1	229	18	36
Peoria.....	81,564	2	1	0	0	0	0	2	1
Springfield.....	63,923	3	0	0	0	0	12	4	1
Michigan:									
Detroit.....	1,245,824	56	37	49	2	7	53	7	31
Flint.....	130,316	16	3	2	0	0	131	1	5
Grand Rapids.....	153,398	5	2	2	0	0	63	0	2
Wisconsin:									
Kenosha.....	50,891	7	0	0	0	0	46	1	0
Madison.....	46,385	0	0	0	0	0	0	0	0
Milwaukee.....	599,192	90	12	13	2	3	293	50	11
Racine.....	67,707	3	0	2	0	0	279	4	6
Superior.....	39,671	0	0	1	0	0	16	0	2
WEST NORTH CENTRAL									
Minnesota:									
Duluth.....	110,502	7	1	0	0	0	13	0	2
Minneapolis.....	425,435	35	14	25	0	0	72	1	8
St. Paul.....	246,001	24	15	4	0	1	364	0	1
Iowa:									
Davenport.....	52,469	0	1	2	0	0	2	0	0
Des Moines.....	141,441	0	1	2	0	0	0	0	0
Sioux City.....	76,411	1	0	0	0	0	0	0	0
Waterloo.....	30,771	2	0	0	0	0	54	1	0
Missouri:									
Kansas City.....	367,481	12	5	1	2	2	29	2	9
St. Joseph.....	78,342	3	1	0	0	0	6	0	0
St. Louis.....	821,543	12	39	72	1	1	497	6	0
North Dakota:									
Fargo.....	26,403	2	0	0	0	0	0	2	0
Grand Forks.....	14,811	0	0	0	0	0	0	0	0
South Dakota:									
Aberdeen.....	15,036	0	0	0	0	0	3	3	0
Sioux Falls.....	30,127	0	0	0	0	0	4	0	0
Nebraska:									
Lincoln.....	60,941	3	1	0	0	0	0	0	0
Omaha.....	211,768	7	2	1	0	0	56	0	2
Kansas:									
Topeka.....	55,411	19	1	0	0	0	11	0	1
Wichita.....	88,367	0	1	1	0	0	4	0	1
SOUTH ATLANTIC									
Delaware:									
Wilmington.....	122,049	2	1	3	0	0	3	0	4
Maryland:									
Baltimore.....	796,296	46	17	11	3	2	40	98	19
Cumberland.....	33,741	0	0	0	0	0	7	0	0
Frederick.....	12,035	0	0	0	0	0	1	3	0
District of Columbia:									
Washington.....	497,906	27	8	6	0	0	101	0	9
Virginia:									
Lynchburg.....	30,395	4	0	0	0	0	29	0	0
Norfolk.....	(1)	19	0	0	0	0	33	2	0
Richmond.....	186,403	6	0	1	0	0	101	2	1
Roanoke.....	58,208	0	0	0	0	0	23	1	0
West Virginia:									
Charleston.....	42,019	1	0	0	4	0	35	0	0
Wheeling.....	56,208	10	0	0	0	0	91	0	0
North Carolina:									
Raleigh.....	30,371	2	0	2	0	0	1	0	0
Wilmington.....	37,061	0	0	0	0	0	43	6	1
Winston-Salem.....	60,031	2	0	0	0	0	0	0	0
South Carolina:									
Charleston.....	73,125	2	0	0	11	1	6	0	1
Columbia.....	41,225	5	0	0	0	0	0	0	0
Greenville.....	27,311	0	0	0	0	0	0	1	0

1 No estimate made.

## City reports for week ended June 5, 1926—Continued

Division, State, and city	Population July 1, 1925, estimated	Chicken pox, cases reported	Diphtheria		Influenza		Measles, cases reported	Mumps, cases reported	Pneumonia, deaths reported
			Cases, estimated expectancy	Cases reported	Cases reported	Deaths reported			
SOUTH ATLANTIC—continued									
Georgia:									
Atlanta.....	(1)	10	1	2	4	0	26	0	2
Brunswick.....	16,809	0	0	0	0	0	6	0	0
Savannah.....	93,134	0	0	0	1	1	0	1	0
Florida:									
Miami.....	69,754	1	—	4	0	0	5	2	2
St. Petersburg.....	26,847	—	0	—	0	0	—	—	1
Tampa.....	94,793	1	0	0	0	0	0	1	2
EAST SOUTH CENTRAL									
Kentucky:									
Covington.....	58,309	0	1	0	0	0	11	0	0
Louisville.....	305,435	2	3	0	0	2	21	0	13
Tennessee:									
Memphis.....	174,533	—	1	1	0	0	139	—	2
Nashville.....	136,220	4	0	0	0	2	10	0	3
Alabama:									
Birmingham.....	205,670	14	0	2	1	3	127	6	6
Mobile.....	65,855	1	0	0	0	0	1	0	0
Montgomery.....	46,461	0	0	0	0	0	11	2	0
WEST SOUTH CENTRAL									
Arkansas:									
Fort Smith.....	31,643	4	0	0	0	—	1	1	—
Little Rock.....	74,216	4	0	0	0	0	6	0	2
Louisiana:									
New Orleans.....	414,493	4	6	6	3	2	5	0	8
Shreveport.....	57,557	1	0	3	0	0	0	1	2
Oklahoma:									
Oklahoma City.....	(1)	0	0	1	6	1	6	0	1
Texas:									
Dallas.....	194,450	37	2	1	0	0	4	0	0
Galveston.....	48,375	0	1	0	0	0	0	0	1
Houston.....	164,964	0	2	2	0	1	0	1	3
San Antonio.....	198,069	0	0	1	0	0	4	0	5
MOUNTAIN									
Montana:									
Billings.....	17,971	2	0	0	0	0	7	0	1
Great Falls.....	20,843	1	0	0	0	1	53	0	0
Helena.....	12,037	0	0	0	0	0	0	0	1
Missoula.....	12,668	2	0	1	0	0	1	0	0
Idaho:									
Boise.....	23,042	0	0	0	0	0	3	0	0
Colorado:									
Denver.....	280,911	32	10	5	—	1	23	1	7
Pueblo.....	43,787	6	1	0	0	0	39	0	1
New Mexico:									
Albuquerque.....	21,060	6	1	4	0	0	2	2	2
Arizona:									
Phoenix.....	36,669	0	—	0	0	0	0	0	0
Utah:									
Salt Lake City.....	130,948	—	3	6	0	0	11	—	6
Nevada:									
Reno.....	12,666	0	0	0	0	0	0	0	0
PACIFIC									
Washington:									
Seattle.....	(1)	25	4	8	0	—	32	33	—
Spokane.....	108,897	13	2	1	0	—	18	0	0
Tacoma.....	104,465	1	1	4	0	0	2	1	3
Oregon:									
Portland.....	282,383	13	0	7	3	0	49	3	6
California:									
Los Angeles.....	(1)	18	34	21	9	0	2	4	8
Sacramento.....	72,260	5	2	4	0	0	0	8	8
San Francisco.....	587,530	28	18	11	1	1	204	16	0

(1) No estimate made.  
 (2) 1925.

## City reports for week ended June 5, 1926—Continued

Division, State, and city	Scarlet fever		Smallpox			Tuber- culosis, deaths re- ported	Typhoid fever			Whoop- ing cough, cases re- ported	Deaths, all causes
	Cases, esti- mated expect- ancy	Cases re- ported	Cases, esti- mated expect- ancy	Cases re- ported	Deaths re- ported		Cases, esti- mated expect- ancy	Cases re- ported	Deaths re- ported		
NEW ENGLAND											
Maine:											
Portland.....	1	2	0	0	0	1	1	0	0	8	25
New Hampshire:											
Concord.....	0	0	0	0	0	0	0	0	0	0	5
Manchester.....	1	5	0	0	0	0	0	0	0	0	14
Vermont:											
Barre.....	1	0	0	0	0	0	0	0	0	0	2
Massachusetts:											
Boston.....	42	59	0	0	0	17	2	0	0	51	199
Fall River.....	2	4	0	0	0	7	1	0	0	2	35
Springfield.....	5	2	0	0	0	2	0	0	0	5	37
Worcester.....	7	7	0	0	0	1	0	0	0	14	48
Rhode Island:											
Pawtucket.....	1	0	0	0	0	2	0	0	0	3	14
Providence.....	7	3	0	0	0	1	0	0	0	10	71
Connecticut:											
Bridgeport.....	6	18	0	0	0	1	0	0	0	1	29
Hartford.....	3	3	0	0	0	0	0	0	0	2	35
New Haven.....	3	7	0	0	0	3	1	0	0	6	46
MIDDLE ATLANTIC											
New York:											
Buffalo.....	19	0	0	0	0	13	1	0	1	34	152
New York.....	187	234	1	0	0	114	11	12	0	60	1,347
Rochester.....	13	14	0	0	0	4	0	1	0	8	85
Syracuse.....	9	0	0	0	0	2	0	0	0	30	47
New Jersey:											
Camden.....	3	5	0	0	0	0	1	0	0	0	31
Newark.....	16	19	0	0	0	5	0	2	0	18	80
Trenton.....	2	3	0	0	0	6	0	0	0	0	40
Pennsylvania:											
Philadelphia.....	65	90	1	0	0	38	5	2	0	36	404
Pittsburgh.....	23	34	0	0	0	7	1	1	0	102	162
Reading.....	2	12	0	0	0	0	0	0	0	9	23
EAST NORTH CENTRAL											
Ohio:											
Cincinnati.....	9	15	2	1	0	8	0	1	0	21	137
Cleveland.....	18	60	2	0	0	13	1	0	0	74	18
Columbus.....	7	14	2	0	0	4	1	1	0	10	68
Toledo.....	10	11	2	0	0	7	1	0	0	40	60
Indiana:											
Fort Wayne.....	2	7	3	0	0	1	0	0	0	3	13
Indianapolis.....	10	8	9	9	0	3	1	0	0	12	130
South Bend.....	3	3	1	1	0	1	0	0	0	4	17
Terre Haute.....	2	5	1	0	0	1	0	0	0	6	15
Illinois:											
Chicago.....	97	73	3	2	0	55	3	1	0	43	633
Peoria.....	3	1	0	0	0	1	0	1	0	0	24
Springfield.....	1	2	1	0	0	0	1	1	0	4	18
Michigan:											
Detroit.....	61	124	3	0	0	25	3	3	1	58	391
Flint.....	4	19	1	0	0	1	0	0	0	3	23
Grand Rapids.....	5	7	1	0	0	1	0	0	0	6	32
Wisconsin:											
Kenosha.....	1	0	2	0	0	0	0	0	0	3	13
Madison.....	2	0	0	0	0	0	0	0	0	0	0
Milwaukee.....	19	15	5	0	0	4	0	0	0	31	102
Racine.....	4	2	1	0	0	1	0	0	0	7	18
Superior.....	2	5	2	0	0	0	0	0	0	0	13
WEST NORTH CENTRAL											
Minnesota:											
Duluth.....	4	17	2	0	0	1	1	0	0	0	29
Minneapolis.....	27	43	9	0	0	3	1	0	0	4	83
St. Paul.....	18	29	4	0	0	8	0	0	0	32	65

\* Pulmonary tuberculosis only.

## City reports for the week ended June 5, 1926—Continued

Division, State, and city	Scarlet fever		Smallpox			Tuber- culo- sis, deaths re- ported	Typhoid fever			Whoop- ing cough, cases re- ported	Deaths, all causes
	Cases, esti- mated expect- ancy	Cases re- ported	Cases, esti- mated expect- ancy	Cases re- ported	Deaths re- ported		Cases, esti- mated expect- ancy	Cases re- ported	Deaths re- ported		
WEST NORTH CENTRAL—contd.											
Iowa:											
Davenport.....	1	0	4	1	-----	-----	0	0	-----	0	-----
Des Moines.....	5	4	3	1	-----	-----	0	0	-----	0	-----
Sioux City.....	2	9	1	8	-----	-----	0	0	-----	3	-----
Waterloo.....	2	0	0	0	-----	-----	0	0	-----	6	-----
Missouri:											
Kansas City.....	6	11	3	0	0	9	0	0	0	8	94
St. Joseph.....	1	1	0	0	0	0	1	1	0	0	31
St. Louis.....	25	58	3	1	0	7	2	3	0	34	184
North Dakota:											
Fargo.....	0	2	0	1	0	0	0	0	0	4	6
Grand Forks.....	0	-----	0	-----	-----	-----	0	-----	-----	-----	-----
South Dakota:											
Aberdeen.....	1	8	0	0	-----	-----	0	0	-----	34	-----
Sioux Falls.....	1	1	1	0	0	0	0	0	0	0	5
Nebraska:											
Lincoln.....	1	2	0	0	0	2	0	0	0	15	10
Omaha.....	4	35	5	10	0	4	0	0	1	3	48
Kansas:											
Topeka.....	1	2	1	0	0	0	0	0	0	15	11
Wichita.....	2	1	3	0	0	0	0	0	0	18	25
SOUTH ATLANTIC											
Delaware:											
Wilmington.....	4	5	0	0	0	1	1	0	0	0	32
Maryland:											
Baltimore.....	22	46	1	0	0	13	3	2	2	49	215
Cumberland.....	1	0	0	0	0	0	0	0	0	0	5
Frederick.....	0	0	0	0	0	0	0	0	0	2	2
District of Col.:											
Washington.....	15	28	2	0	0	14	2	1	0	27	146
Virginia:											
Lynchburg.....	1	2	0	0	0	0	1	0	0	3	12
Norfolk.....	1	15	1	1	0	4	0	0	0	13	-----
Richmond.....	2	9	0	1	0	5	1	0	0	0	57
Roanoke.....	1	0	1	5	0	3	0	0	0	1	14
West Virginia:											
Charleston.....	1	0	0	0	0	-----	1	0	0	16	-----
Huntington.....	0	0	0	-----	-----	-----	0	-----	-----	-----	-----
Wheeling.....	2	1	1	0	0	3	0	0	0	0	14
North Carolina:											
Raleigh.....	0	0	0	1	0	1	0	0	0	6	16
Wilmington.....	0	0	0	-----	-----	-----	0	-----	-----	-----	-----
Winston-Salem.....	0	0	2	0	0	0	1	1	0	9	1
South Carolina:											
Charleston.....	0	0	0	1	0	1	0	1	0	4	16
Columbia.....	0	0	0	0	0	0	1	3	0	0	-----
Greenville.....	0	1	1	0	0	0	1	0	0	1	9
Georgia:											
Atlanta.....	4	0	0	0	0	4	1	8	3	0	70
Brunswick.....	0	0	0	0	0	0	0	0	0	0	5
Savannah.....	0	0	1	0	0	2	1	0	0	0	33
Florida:											
Miami.....	-----	0	-----	1	0	0	-----	4	0	18	44
St. Petersburg.....	0	-----	0	-----	0	2	0	-----	0	-----	18
Tampa.....	0	0	0	9	0	4	0	1	0	0	86
EAST SOUTH CENTRAL											
Kentucky:											
Covington.....	1	7	0	0	0	3	0	0	0	0	10
Louisville.....	4	5	1	1	0	6	1	0	1	3	91
Tennessee:											
Memphis.....	3	8	2	3	0	2	1	0	0	-----	47
Nashville.....	2	2	1	0	0	2	1	0	0	5	40
Alabama:											
Birmingham.....	1	2	6	8	0	4	2	1	1	19	86
Mobile.....	0	0	1	0	0	2	1	1	0	0	22
Montgomery.....	0	0	0	4	0	0	0	0	0	0	24

## City reports for week ended June 5, 1926—Continued

Division, State, and city	Scarlet fever		Smallpox			Tuber- culosis, deaths re-reported	Typhoid fever			Whoop- ing cough, cases re-reported	Deaths, all causes
	Cases, esti- mated expect- ancy	Cases re- ported	Cases, esti- mated expect- ancy	Cases re- ported	Deaths re-reported		Cases, esti- mated expect- ancy	Cases re- ported	Deaths re-reported		
WEST SOUTH CENTRAL											
Arkansas:											
Fort Smith.....	1	0	0	0	0	2	0	0	0	6	4
Little Rock.....	0	14	0	0	0	2	1	0	0	4	4
Louisiana:											
New Orleans.....	2	13	2	2	0	13	3	0	0	16	2
Shreveport.....	0	0	1	0	0	1	0	0	0	2	24
Oklahoma:											
Oklahoma City.....	1	1	4	1	0	2	1	0	0	0	19
Texas:											
Dallas.....	2	8	2	2	0	4	1	1	2	8	45
Galveston.....	0	0	1	5	0	0	1	0	0	0	17
Houston.....	1	2	1	1	0	3	1	0	0	0	68
San Antonio.....	1	1	0	0	0	9	1	1	1	0	51
MOUNTAIN											
Montana:											
Billings.....	1	1	0	0	0	1	0	0	0	0	2
Great Falls.....	2	0	2	0	0	0	0	0	0	1	10
Helena.....	0	0	0	0	0	0	0	0	0	0	6
Missoula.....	0	1	0	0	0	0	0	0	0	0	7
Idaho:											
Boise.....	0	0	1	3	0	0	0	0	0	0	7
Colorado:											
Denver.....	9	15	1	0	0	12	0	1	0	22	79
Pueblo.....	1	2	0	0	0	1	0	0	0	1	3
New Mexico:											
Albuquerque.....	1	2	0	0	0	5	0	1	0	2	22
Arizona:											
Phoenix.....		1	0	0	0	12		3	0	0	23
Utah:											
Salt Lake City.....	2	5	1	0	0	0	0	0	0		28
Nevada:											
Reno.....	0	0	1	0	0	0	0	0	0	0	3
PACIFIC											
Washington:											
Seattle.....	9	10	4	0			1	0		5	
Spokane.....	4	15	3	0			0	0		7	
Tacoma.....	2	3	2	5	0	0	0	1	0	1	24
Oregon:											
Portland.....	7	32	7	8	0	1	0	0	0	9	59
California:											
Los Angeles.....	17	21	4	3	0	31	2	0	0	4	208
Sacramento.....	1	0	0	1	0	2	0	1	0	0	13
San Francisco.....	13	14	1	0	0	7	1	1	0	11	144

Division, State, and city	Cerebrospinal meningitis		Lethargic encephalitis		Pellagra		Polioomyelitis (infantile paralysis)			
	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases, estimated expectancy	Cases	Deaths	
<b>NEW ENGLAND</b>										
Massachusetts:										
Boston.....	0	0	2	1	0	0	0	1	1	0
Fall River.....	0	0	1	1	0	0	0	0	0	0
Connecticut:										
Bridgeport.....	0	0	1	0	0	0	0	0	0	0
Hartford.....	1	1	0	0	0	0	0	0	0	0

## City reports for week ended June 5, 1926—Continued

Division, State, and city	Cerebrospinal meningitis		Lethargic encephalitis		Pellagra		Poliomyelitis (infantile paralysis)		
	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases, estimated (expectancy)	Cases	Deaths
<b>MIDDLE ATLANTIC</b>									
New York:									
New York.....	1	0	8	4	0	0	1	1	1
New Jersey:									
Newark.....	2	0	0	0	0	0	1	0	0
Pennsylvania:									
Pittsburgh.....	2	1	0	0	0	0	0	0	0
<b>EAST NORTH CENTRAL</b>									
Ohio:									
Columbus.....	0	0	0	1	0	0	0	0	0
Illinois:									
Chicago.....	2	1	1	0	0	0	0	0	0
Michigan:									
Detroit.....	2	0	0	0	0	0	0	0	0
<b>WEST NORTH CENTRAL</b>									
Minnesota:									
Duluth.....	1	1	0	0	0	0	0	0	0
St. Paul.....	0	0	1	0	0	0	0	0	0
Missouri:									
Kansas City.....	2	2	0	0	0	0	0	0	0
<b>SOUTH ATLANTIC<sup>1</sup></b>									
District of Columbia:									
Washington.....	0	0	0	0	0	1	0	0	0
North Carolina:									
Raleigh.....	0	0	0	0	0	1	0	0	0
South Carolina:									
Charleston.....	0	0	0	0	0	1	0	0	0
Georgia:									
Atlanta.....	0	0	0	0	0	1	0	0	0
Florida:									
Miami.....	1	0	0	0	0	0	0	0	0
<b>EAST SOUTH CENTRAL</b>									
Alabama:									
Birmingham.....	0	0	0	0	1	0	0	0	0
Mobile.....	0	0	0	0	1	1	0	0	0
<b>WEST SOUTH CENTRAL</b>									
Louisiana:									
Shreveport.....	0	0	0	0	0	1	0	0	0
Oklahoma:									
Oklahoma City.....	0	0	0	0	1	1	0	0	0
Texas:									
Galveston.....	0	0	0	0	0	1	0	0	0
Houston.....	0	0	0	0	0	1	0	0	0
<b>PACIFIC</b>									
Washington:									
Spokane.....	1	0	0	0	0	0	0	0	0
Oregon:									
Portland.....	0	0	0	1	0	0	0	0	0
California:									
Los Angeles.....	1	1	0	0	1	1	1	0	0

<sup>1</sup> Typhus fever, 2 cases at Baltimore, Md.

The following table gives the rates per 100,000 population for 103 cities for the five-week period ended June 5, 1926, compared with those for a like period ended June 6, 1925. The population figures used in computing the rates are approximate estimates as of July 1,



1925 and 1926, respectively, authoritative figures for many of the cities not being available. The 103 cities reporting cases had an estimated aggregate population of nearly 30,000,000 in 1925 and nearly 30,500,000 in 1926. The 96 cities reporting deaths had more than 29,250,000 estimated population in 1925 and more than 29,750,000 in 1926. The number of cities included in each group and the estimated aggregate populations are shown in a separate table below.

*Summary of weekly reports from cities, May 2 to June 5, 1926—Annual rates per 100,000 population—Compared with rates for the corresponding period of 1925*<sup>1</sup>

## DIPHTHERIA CASE RATES

	Week ended									
	May 9, 1925	May 8, 1926	May 16, 1925	May 15, 1926	May 23, 1925	May 22, 1926	May 30, 1925	May 29, 1926	June 6, 1925	June 5, 1926
103 cities.....	<sup>2</sup> 152	<sup>3</sup> 115	<sup>4</sup> 158	<sup>5</sup> 121	148	<sup>6</sup> 117	<sup>7</sup> 144	<sup>8</sup> 122	<sup>9</sup> 152	<sup>7</sup> 118
New England.....	105	106	149	87	122	78	110	80	125	<sup>8</sup> 79
Middle Atlantic.....	211	125	237	135	202	138	210	145	243	134
East North Central.....	106	89	<sup>9</sup> 102	96	101	117	100	108	92	<sup>10</sup> 120
West North Central.....	269	<sup>3</sup> 195	205	<sup>3</sup> 199	243	<sup>3</sup> 145	187	<sup>3</sup> 163	183	<sup>3</sup> 207
South Atlantic.....	98	75	81	77	83	71	<sup>5</sup> 72	96	<sup>6</sup> 88	<sup>11</sup> 51
East South Central.....	11	62	32	52	37	36	11	42	11	<sup>12</sup> 17
West South Central.....	62	60	53	83	40	47	62	65	40	56
Mountain.....	102	146	148	182	129	127	139	127	74	109
Pacific.....	<sup>2</sup> 117	178	<sup>13</sup> 132	175	157	164	160	159	138	132

## MEASLES CASE RATES

	<sup>2</sup> 603	<sup>3</sup> 1,712	<sup>4</sup> 599	<sup>5</sup> 1,565	579	<sup>6</sup> 1,434	<sup>7</sup> 589	<sup>8</sup> 1,283	<sup>9</sup> 594	<sup>7</sup> 1,001
103 cities.....										
New England.....	949	1,714	1,145	1,198	1,014	1,075	836	1,064	841	<sup>8</sup> 736
Middle Atlantic.....	793	1,420	765	1,198	615	1,133	701	956	771	751
East North Central.....	830	<sup>3</sup> 1,454	<sup>9</sup> 795	1,371	888	1,372	839	1,252	825	<sup>10</sup> 1,042
West North Central.....	109	<sup>3</sup> 4,458	76	<sup>4</sup> 4,134	233	<sup>3</sup> 3,437	137	<sup>3</sup> 3,061	111	<sup>3</sup> 2,209
South Atlantic.....	227	1,942	311	1,933	309	1,659	<sup>5</sup> 242	1,542	<sup>6</sup> 993	<sup>11</sup> 1,244
East South Central.....	315	<sup>8</sup> 248	152	<sup>3</sup> 461	310	2,999	200	2,376	121	<sup>12</sup> 1,702
West South Central.....	81	125	13	155	22	142	18	112	22	86
Mountain.....	176	883	55	1,393	179	1,584	<sup>240</sup> 1,302	37	1,247	1,247
Pacific.....	<sup>2</sup> 91	661	<sup>13</sup> 170	679	124	693	157	803	157	696

## SCARLET FEVER CASE RATES

	<sup>2</sup> 311	<sup>3</sup> 294	<sup>4</sup> 338	<sup>5</sup> 326	297	<sup>6</sup> 309	<sup>7</sup> 267	<sup>8</sup> 274	<sup>9</sup> 256	<sup>7</sup> 220
103 cities.....										
New England.....	400	222	345	312	338	288	204	258	256	<sup>8</sup> 251
Middle Atlantic.....	318	217	336	249	264	256	270	212	262	209
East North Central.....	341	310	<sup>9</sup> 368	356	358	341	321	339	293	<sup>10</sup> 246
West North Central.....	599	<sup>3</sup> 933	705	<sup>3</sup> 870	539	<sup>7</sup> 721	<sup>5</sup> 514	<sup>3</sup> 695	466	<sup>3</sup> 416
South Atlantic.....	100	177	156	222	138	195	<sup>6</sup> 115	160	<sup>6</sup> 125	<sup>11</sup> 175
East South Central.....	242	187	299	202	226	176	168	171	116	<sup>12</sup> 94
West South Central.....	94	176	70	155	44	172	62	116	84	168
Mountain.....	208	137	342	246	314	173	398	100	324	218
Pacific.....	<sup>2</sup> 144	208	<sup>13</sup> 187	259	155	294	133	181	144	170

<sup>1</sup> The figures given in this table are rates per 100,000 population, annual basis, and not the number of cases reported. Populations used are estimated as of July 1, 1925 and 1926, respectively.

<sup>2</sup> Spokane, Wash., not included.

<sup>3</sup> Grand Forks, N. Dak., not included.

<sup>4</sup> Superior, Wis., and Tacoma, Wash., not included.

<sup>5</sup> Charleston, W. Va., not included.

<sup>6</sup> Wilmington, N. C., not included.

<sup>7</sup> Concord, N. H., Madison, Wis., Grand Forks, N. Dak., Norfolk, Va., Wilmington, N. C., and Covington, Ky., not included.

<sup>8</sup> Concord, N. H., not included.

<sup>9</sup> Superior, Wis., not included.

<sup>10</sup> Madison, Wis., not included.

<sup>11</sup> Norfolk, Va., and Wilmington, N. C., not included.

<sup>12</sup> Covington, Ky., not included.

<sup>13</sup> Tacoma, Wash., not included.

Summary of weekly reports from cities, May 2 to June 5, 1926—Annual rates per 100,000 population—Compared with rates for the corresponding period of 1925—Continued

## SMALLPOX CASE RATES

	Week ended									
	May 9, 1925	May 8, 1926	May 16, 1925	May 15, 1926	May 23, 1925	May 22, 1926	May 30, 1925	May 29, 1926	June 6, 1925	June 5, 1926
103 cities.....	<sup>2</sup> 45	<sup>2</sup> 26	<sup>4</sup> 44	<sup>2</sup> 26	58	<sup>2</sup> 18	<sup>2</sup> 47	<sup>2</sup> 19	<sup>4</sup> 45	<sup>7</sup> 15
New England.....	2	0	0	0	0	0	0	0	0	<sup>8</sup> 0
Middle Atlantic.....	6	0	7	0	2	0	2	1	4	0
East North Central.....	41	22	<sup>5</sup> 53	20	66	18	54	13	61	<sup>10</sup> 9
West North Central.....	58	<sup>5</sup> 58	76	<sup>2</sup> 30	65	<sup>2</sup> 28	68	<sup>2</sup> 44	92	<sup>2</sup> 40
South Atlantic.....	42	30	35	39	61	24	<sup>1</sup> 10	28	<sup>2</sup> 37	<sup>11</sup> 24
East South Central.....	347	73	173	119	404	62	389	62	105	<sup>12</sup> 88
West South Central.....	20	159	35	116	123	95	53	99	31	43
Mountain.....	46	36	28	55	28	18	55	36	37	27
Pacific.....	<sup>2</sup> 167	57	<sup>12</sup> 181	67	177	51	160	32	182	24

## TYPHOID FEVER CASE RATES

	<sup>2</sup> 13	<sup>2</sup> 8	<sup>4</sup> 13	<sup>2</sup> 8	18	<sup>2</sup> 11	<sup>2</sup> 15	<sup>2</sup> 10	<sup>2</sup> 24	<sup>7</sup> 9
103 cities.....										
New England.....	5	9	12	0	24	9	17	7	20	<sup>8</sup> 0
Middle Atlantic.....	13	7	10	10	19	7	9	5	26	9
East North Central.....	8	4	<sup>2</sup> 6	5	5	5	7	9	9	<sup>10</sup> 5
West North Central.....	2	<sup>2</sup> 6	0	<sup>2</sup> 4	<sup>2</sup> 8	10	<sup>2</sup> 4	8	8	<sup>2</sup> 8
South Atlantic.....	27	13	25	4	36	32	<sup>2</sup> 39	26	<sup>2</sup> 39	<sup>11</sup> 34
East South Central.....	42	16	58	0	68	10	47	31	37	<sup>12</sup> 11
West South Central.....	44	17	75	43	62	26	62	13	84	9
Mountain.....	0	0	0	9	18	9	9	0	74	9
Pacific.....	<sup>2</sup> 9	11	<sup>12</sup> 8	8	6	19	8	11	8	8

## INFLUENZA DEATH RATES

	14	25	<sup>12</sup> 14	16	14	15	<sup>2</sup> 12	12	<sup>2</sup> 10	<sup>12</sup> 8
96 cities.....										
New England.....	10	14	7	5	5	12	7	9	2	<sup>2</sup> 2
Middle Atlantic.....	10	22	12	17	11	16	9	11	11	6
East North Central.....	15	29	10	18	11	18	13	11	10	<sup>10</sup> 8
West North Central.....	11	13	11	6	17	8	17	13	4	8
South Atlantic.....	19	19	10	17	6	11	<sup>2</sup> 12	11	<sup>2</sup> 6	<sup>11</sup> 8
East South Central.....	47	99	74	31	79	36	37	26	47	<sup>12</sup> 39
West South Central.....	15	47	19	28	19	24	29	9	5	14
Mountain.....	18	18	55	18	18	0	0	9	28	18
Pacific.....	15	4	<sup>12</sup> 12	4	22	4	7	11	11	4

## PNEUMONIA DEATH RATES

	145	163	<sup>12</sup> 123	150	123	141	<sup>2</sup> 119	<sup>2</sup> 120	<sup>2</sup> 123	<sup>12</sup> 106
96 cities.....										
New England.....	156	170	129	165	110	144	110	123	69	<sup>2</sup> 117
Middle Atlantic.....	184	174	143	165	143	173	145	145	167	130
East North Central.....	123	178	118	147	116	133	111	100	107	<sup>10</sup> 99
West North Central.....	74	121	65	81	76	94	57	83	55	50
South Atlantic.....	148	169	129	182	125	145	<sup>2</sup> 147	<sup>2</sup> 111	<sup>2</sup> 138	<sup>16</sup> 83
East South Central.....	147	223	152	182	126	171	158	171	116	<sup>12</sup> 132
West South Central.....	131	118	106	137	73	90	73	109	63	99
Mountain.....	120	82	157	91	166	82	74	91	92	146
Pacific.....	109	78	<sup>12</sup> 75	92	120	53	73	64	110	67

<sup>2</sup> Spokane, Wash., not included.

<sup>3</sup> Grand Forks, N. Dak., not included.

<sup>4</sup> Superior, Wis., and Tacoma, Wash., not included.

<sup>5</sup> Charleston, W. Va., not included.

<sup>6</sup> Wilmington, N. C., not included.

<sup>7</sup> Concord, N. H., not included.

<sup>8</sup> Madison, Wis., not included.

<sup>9</sup> Norfolk, Va., and Wilmington, N. C., not included.

<sup>10</sup> Covington, Ky., not included.

<sup>11</sup> Tacoma, Wash., not included.

<sup>12</sup> Concord, N. H., Madison, Wis., Norfolk, Va., Wilmington, N. C., and Covington, Ky., not included.

<sup>13</sup> Concord, N. H., Madison, Wis., Norfolk, Va., Charleston, W. Va., Wilmington, N. C., and Covington, Ky., not included.

<sup>14</sup> Norfolk, Va., Charleston, W. Va., and Wilmington, N. C., not included.

*Number of cities included in summary of weekly reports, and aggregate population of cities in each group, approximated as of July 1, 1925 and 1926, respectively*

Group of cities	Number of cities reporting cases	Number of cities reporting deaths	Aggregate population of cities reporting cases		Aggregate population of cities reporting deaths	
			1925	1926	1925	1926
Total.....	103	96	29, 944, 996	30, 473, 129	29, 251, 658	29, 764, 201
New England.....	12	12	2, 176, 124	2, 206, 124	2, 176, 124	2, 206, 124
Middle Atlantic.....	10	10	10, 348, 970	10, 476, 970	10, 346, 070	10, 476, 970
East North Central.....	16	16	7, 481, 656	7, 655, 436	7, 481, 656	7, 655, 436
West North Central.....	14	11	2, 594, 962	2, 634, 662	2, 461, 380	2, 498, 036
South Atlantic.....	21	21	2, 716, 070	2, 776, 070	2, 716, 070	2, 776, 070
East South Central.....	7	7	993, 103	1, 004, 953	993, 103	1, 004, 953
West South Central.....	8	6	1, 184, 057	1, 212, 057	1, 078, 195	1, 103, 695
Mountain.....	9	9	563, 912	572, 773	563, 912	572, 773
Pacific.....	6	4	1, 898, 142	1, 934, 084	1, 434, 245	1, 469, 144

## FOREIGN AND INSULAR

### THE FAR EAST

*Report for week ended May 29, 1926.*—The following report for the week ended May 29, 1926, was transmitted by the far eastern bureau of the health section of the League of Nations' secretariat, located at Singapore, to the headquarters at Geneva:

Maritime towns	Plague		Cholera		Small-pox		Maritime towns	Plague		Cholera		Small-pox	
	Cases	Deaths	Cases	Deaths	Cases	Deaths		Cases	Deaths	Cases	Deaths	Cases	Deaths
Egypt: Suez.....	3	0	0	0	0	0	Hongkong.....	0	0	0	0	1	0
Iraq: Basrah.....	0	0	0	0	4	3	China:						
British India:							Shanghai.....	0	0	0	0	---	2
Bombay.....	2	---	0	26	1		Amoy.....	13	0	0	0	1	0
Madras.....	0	---	0	2	1		Sarawak: Kuching.....	0	0	0	0	1	0
Karachi.....	1	---	0	3	3		Japan: Osaka.....	0	0	0	0	3	0
Negapatam.....	0	---	0	1	1		Kwangtung:						
Siam: Bangkok.....	1	1	219	118	7	3	Dairen.....	0	0	0	0	4	0
French Indo-China:							Port Arthur.....	0	0	0	0	1	0
Saigon and Cholon	0	0	5	5	0	0							
Haiphong.....	0	0	27	20	0	0							

Telegraphic reports from the following maritime towns indicated that no case of plague, cholera, or smallpox was reported during the week:

#### ASIA

*British India.*—Chittagong, Cochin, Tuticorin.

*Ceylon.*—Colombo.

*Federated Malay States.*—Port Swettenham.

*Straits Settlements.*—Penang, Singapore.

*Dutch East Indies.*—Batavia, Surabaya, Samarang, Cheribon, Belawan Deli, Palembang, Sabang, Makassar, Menado, Banjarmasin, Balikpapan, Tarakan, Pontianak, Padang.

*British North Borneo.*—Sandakan.

*Portuguese Timor.*—Dilly.

*Philippine Islands.*—Manila, Iloilo, Jolo, Cebu, Zamboanga.

*French Indo-China.*—Turane.

*Formosa.*—Keelung.

*Japan.*—Nagasaki, Yokohama, Shimonoseki, Moji, Kobe, Niigata, Tsuruga, Hakodate.

*Korea.*—Chemulpo, Fusan.

*Manchuria.*—Antung, Mukden, Changchun, Harbin.

*U. S. S. R.*—Vladivostok.

## AUSTRALASIA AND OCEANIA

*Australia*.—Adelaide, Melbourne, Sydney, Brisbane, Rockhampton, Townsville, Port Darwin, Broome, Fremantle, Carnarvon, Thursday Island.

*New Guinea*.—Port Moresby.

*New Zealand*.—Auckland, Wellington, Christchurch, Invercargill, Dunedin.

*New Caledonia*.—Noumea.

*Hawaii*.—Honolulu.

## AFRICA

*Egypt*.—Alexandria, Port Said.

*Anglo-Egyptian Sudan*.—Port Sudan.

*Eritrea*.—Massaua.

*French Somaliland*.—Jibuti.

*British Somaliland*.—Berbera.

*Italian Somaliland*.—Mogadiscio.

*Kenya*.—Mombasa.

*Tanganyika*.—Dar-es-Salaam.

*Seychelles*.—Victoria.

*Mauritius*.—Port Louis.

*Portuguese East Africa*.—Mozambique, Beira.

*Union of South Africa*.—Durban, East London, Port Elizabeth, Cape Town.

Reports had not been received in time for distribution from:

*British India*.—Rangoon, Calcutta, Vizagapatam.

*Madagascar*.—Tamatave, Majunga.

*Portuguese East Africa*.—Lourenco Marques.

*Zanzibar*.—Zanzibar.

## BRAZIL

*Yellow fever—Parahyba—Natal*.—An outbreak of yellow fever in Parahyba and Natal, Brazil, late in March was reported to be checked May 17, 1926. Thirty cases and several deaths were reported in Parahyba, and a smaller number in Natal.

## CANADA

*Communicable diseases—May 9–29, 1926*.—The Canadian Ministry of Health reports certain communicable diseases in seven Provinces of Canada for the period May 9 to May 29, 1926, as follows:

Disease	Nova Scotia	New Brunswick	Quebec	Ontario	Manitoba	Saskatchewan	Alberta	Total
Cerebrospinal meningitis			2					2
Influenza	224	1						225
Poliomyelitis			1	1				2
Smallpox			25	8	5			38
Typhoid fever			27	24	4	9	6	70

## CZECHOSLOVAKIA

*Communicable diseases—January–March, 1926.*—During the three months ended March 31, 1926, communicable diseases were reported in Czechoslovakia as follows:

Disease	Cases	Deaths	Provinces showing greatest number of cases and deaths
Anthrax.....	6	2	Russia: Cases, 3. Slovakia, deaths, 2.
Cerebrospinal meningitis.....	74	19	Bohemia: Cases 31; deaths, 11.
Diphtheria.....	1,383	114	Bohemia: Cases, 715; deaths, 60.
Dysentery.....	57	1	Slovakia: Cases, 20. Bohemia, 1 death.
Malaria.....	3	-----	Slovakia.
Paratyphoid fever B.....	12	1	Bohemia.
Puerperal infection.....	128	38	Bohemia: Cases, 65; deaths, 25.
Scarlet fever.....	3,787	77	Bohemia: Cases, 2,108; deaths, 35.
Smallpox.....	1	1	Slovakia.
Trachoma.....	880	-----	Moravia: Cases, 322.
Typhoid fever.....	1,198	118	Slovakia: Cases, 491; deaths, 25.
Typhus fever.....	111	1	Russia: Cases, 111; deaths, 1.

## EGYPT

*Plague—May 7–13, 1926—Summary.*—During the week ended May 13, 1926, 11 cases of plague, of which one case occurred at Alexandria, were reported in Egypt, making a total of 32 cases reported from January 1 to May 13, 1926, as compared with 40 cases reported during the corresponding period of the preceding year.

*Later occurrence.*—Later occurrence of plague in Egypt has been reported as follows: *Suez*—May 16, 1 case with 1 death (bubonic); province of *Beni-Suef*, May 16–20, 5 cases with 4 deaths (bubonic and septicemic); Province of *Minia*, May 17, 1 case (bubonic).

## ESTHONIA

*Communicable diseases—March–April, 1926.*—Cases of communicable diseases have been reported in the Republic of Esthonia, for the months of March and April, 1926, as follows:

Disease	March, 1926	April, 1926
Cerebrospinal meningitis.....	1	-----
Diphtheria.....	47	37
Leprosy.....	4	1
Measles.....	82	586
Scarlet fever.....	288	157
Tuberculosis.....	197	143
Typhoid fever.....	28	14
Typhus fever.....	5	4

## INDIA

*Epidemic plague—Punjab.*—Under date of May 8, 1926, epidemic plague was declared present in the Punjab, India, with cases in nearly every district of the Province. The greatest prevalence was reported in the eastern districts. During the second week in April, 1926, 7,336 cases with 5,379 deaths were reported.

## JAMAICA

*Smallpox (alastrim)*—April 25–May 29, 1926.—During the five weeks ended May 29, 1926, 102 cases of smallpox (alastrim) were reported in the island of Jamaica, exclusive of Kingston. No cases were reported in Kingston.

*Prevalence of other diseases.*—During the period under report other diseases were reported in the island, exclusive of Kingston, as follows: Chicken pox, 42 cases; tuberculosis (pulmonary), 59 cases; typhoid fever, 37 cases. At Kingston the occurrence of the diseases named was reported as follows: Chicken pox, 3 cases; tuberculosis (pulmonary), 13 cases; typhoid fever, 10 cases. Population of island, estimated, 858,118; population of Kingston, census of 1921, 62,707.

## MEXICO

*Anthrax—Vera Cruz.*—During the week ended June 6, 1926, a fatal case of anthrax was reported at Vera Cruz, Mexico.

## PANAMA CANAL

*Communicable diseases—April, 1926.*—During the month of April, 1926, communicable diseases were reported in the Canal Zone, and at Colon and Panama, as follows:

Disease	Canal Zone		Colon		Panama		Infected in other localities		Total	
	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases	Deaths
Chicken pox.....	2	—	—	—	4	—	—	—	6	—
Diphtheria.....	2	—	1	—	5	1	—	—	8	1
Dysentery.....	—	—	3	—	1	—	6	2	10	2
Hookworm.....	—	—	4	—	31	—	38	—	73	—
Malaria.....	25	—	1	—	—	—	17	—	43	—
Measles.....	3	—	3	—	7	—	8	—	21	—
Menigitis.....	3	1	—	—	—	2	—	—	3	3
Mumps.....	—	—	2	—	—	—	7	—	9	—
Pneumonia <sup>1</sup> .....	—	3	—	4	—	12	—	5	—	24
Tuberculosis <sup>1</sup> .....	—	1	—	4	—	17	—	4	—	26
Whooping cough.....	1	1	4	—	1	—	1	—	7	1

<sup>1</sup> Only deaths reported.

## CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER

The reports contained in the following tables must not be considered as complete or final as regards either the lists of countries included or the figures for the particular countries for which reports are given.

Reports Received During Week Ended June 25, 1926<sup>1</sup>

## CHOLERA

Place	Date	Cases	Deaths	Remarks
India.....	—	—	—	Apr. 18–24, 1926: Cases, 3,514;
Madras.....	May 9–15.....	2	1	deaths, 2,198.
Rangoon.....	Apr. 18–May 8.1..	94	48	

<sup>1</sup> From medical officers of the Public Health Service, American consuls, and other sources.

# **CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued**

## **Reports Received During Week Ended June 25, 1926—Continued**

### **PLAGUE**

Place	Date	Cases	Deaths	Remarks
Egypt.....				May 7-13, 1926: Cases, 11; total Jan. 1-May 13, 1926-32; total for corresponding period 1925-cases, 40.
City—				Bubonic.
Suez.....	May 16.....	1	1	
Province—				Bubonic and septicemic.
Beni-Suef.....	May 16-20.....	5	4	
Minia.....	May 17.....	1	1	Bubonic.
India.....				Apr. 18-24, 1926: Cases, 11,032; deaths, 9,068.
Bombay.....	Apr. 25-May 1.....	2	2	
Karachi.....	May 9-15.....	1		
Madras.....	Apr. 18-24.....	37	22	Presidency.
Punjab District.....	Apr. 2-8.....	7,336	5,379	Epidemic, May 8, 1926.
Rangoon.....	Apr. 18-May 8.....	26	25	
Siam:				
Bangkok.....	Apr. 25-May 1.....	1	3	

### **SMALLPOX**

Algeria:				
Algiers.....	May 11-20.....	6		
British East Africa:				
Kenya—				
Tanganyika.....	Apr. 11-17.....	2		
Canada:				
British Columbia—				
Vancouver.....	May 24-30.....	1		
Ontario.....	May 9-29.....	25		
Hamilton.....	June 6-12.....	1		
China:				
Manchuria—				
An-shan.....	May 2-8.....			South Manchuria Ry. line.
Ershun.....	do.....	3		Do.
Kai-yuan.....	do.....	6		Do.
Kungehuling.....	do.....	1		Do.
Liao-yang.....	do.....	1		Do.
Mukden.....	do.....	5		Do.
Penhsih.....	do.....	2		Do.
Egypt:				
Alexandria.....	Apr. 30-May 13.....	11	5	
Cairo.....	Jan. 8-14.....	5	1	
Great Britain:				
England and Wales.....	May 16-23.....	162		
Leeds.....	May 24-29.....	1		
Newcastle-upon-Tyne.....	do.....	1		
India.....				Apr. 18-24, 1926: Cases, 7,330; deaths, 1,700.
Bombay.....	Apr. 25-May 1.....	34	19	
Karachi.....	May 9-15.....	17	7	
Madras.....	do.....	4	1	
Rangoon.....	Apr. 25-May 8.....	4	1	
Mexico:				
Guadalajara.....	June 1-7.....		1	
San Luis Potosi.....	May 30-June 5.....		2	
Persia:				
Teheran.....	Feb. 28-Mar. 21.....		6	
Portugal:				
Lisbon.....	May 16-20.....	17		
Spain:				
Valencia.....	May 23-29.....	6	3	
Union of South Africa:				
Orange Free State.....	Apr. 25-May 1.....			Outbreaks.

### **TYPHUS FEVER**

Egypt:				
Alexandria.....	Apr. 30-May 6.....	1		
Port Said.....	May 6-13.....	1		
Estonia.....				March, 1926: Cases, 5. April, 1926: Cases, 4.
Union of South Africa:				
Cape Province.....	Apr. 30-May 1.....			Outbreaks, in four districts, in 10 localities.



# **CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued**

## **Reports Received During Week Ended June 25, 1926—Continued**

### **YELLOW FEVER**

Place	Date	Cases	Deaths	Remarks
Brazil.....				Mar.-May 17, 1926: 30 cases, several deaths in Parahyba; a smaller number in Natal. Reported checked May 17, 1926.

## **Reports Received from December 26, 1925, to June 25, 1926<sup>1</sup>**

### **CHOLERA**

Place	Date	Cases	Deaths	Remarks
Chosen.....	October-November, 1925.	12	5	
French Settlements in India.....	Dec. 1-31.....	880	712	
Do.....	Jan. 1-Mar. 6.....	435	349	
India.....				Oct. 18, 1925, to Jan. 2, 1926: Cases, 21,316; deaths, 12,371
Calcutta.....	Nov. 1-28.....	101	89	Jan. 3-Mar. 13, 1926: Cases, 31,105; deaths, 17,859. Mar. 21-Apr. 24, 1926: Cases, 26,050; deaths, 18,233.
Do.....	Dec. 6-26.....		54	
Do.....	Dec. 27-Jan. 16.....		41	
Do.....	Jan. 24-Apr. 3.....	464	417	
Madras.....	Nov. 15-Jan. 2.....	174	70	
Do.....	Jan. 3-Apr. 17.....	146	90	
Do.....	May 9-15.....	2	1	
Rangoon.....	Nov. 8-Dec. 3.....	4	4	
Do.....	Jan. 24-May 8.....	117	67	
Indo-China.....				September-December, 1925: Cases, 13; deaths, 7.
Province—				
Annam.....	Sept. 1-30.....	2	2	
Cambodia.....	Dec. 1-31.....	2	1	
Cochin China.....	Sept. 1-Dec. 31.....	6	4	
Saigon.....	Jan. 4-17.....	2	2	Including 100 square kilometers of surrounding country.
Do.....	Apr. 5-May 1.....	90	73	Including Cholon.
Tonkin.....	Sept. 1-Nov. 30.....	3		
Japan.....	Aug. 30-Oct. 17.....	409		
Do.....	Oct. 25-Dec. 26.....	113		
Do.....	Jan. 3-30.....	13		
Philippine Islands:				
Manila.....	Nov. 9-Jan. 3.....	15	10	
Do.....	Jan. 4-May 1.....	1	28	
Province—				
Bataan.....	Nov. 30-Dec. 26.....	29	25	
Do.....	Jan. 2-16.....	1	1	
Batangas.....	Jan. 24-Feb. 20.....	13	13	
Bohol.....	Jan. 23-30.....	1	1	
Bulacan.....	Oct. 18-Nov. 7.....	92	64	
Do.....	Nov. 23-Dec. 31.....	200	88	
Do.....	Jan. 2-30.....	6	6	
Laguna.....	Nov. 23-Dec. 26.....	18	14	
Do.....	Jan. 24-Feb. 6.....	5	6	
Leyte.....	Jan. 3-9.....	2	2	
Mindoro.....	Dec. 20-31.....	35	30	
Do.....	Jan. 1-Feb. 13.....	64	55	
Nueva Ecija.....	Nov. 30-Dec. 13.....	7	5	
Pampanga.....	Nov. 1-7.....	1	1	
Do.....	Nov. 23-Dec. 31.....	113	85	
Do.....	Jan. 2-Mar. 3.....	39	35	
Rizal.....	Sept. 27-Nov. 21.....	75	21	
Do.....	Dec. 21-30.....	14	11	
Do.....	Jan. 3-Feb. 20.....	89	30	
Romblon.....	Nov. 8-Dec. 13.....	27	14	
Russia.....	May-June.....	7		
Do.....	July-August.....	4		
Siam:				
Bangkok.....	Oct. 4-Nov. 14.....	108	68	
Do.....	Nov. 22-Dec. 26.....	270	149	
Do.....	Dec. 27-Mar. 13.....	398	275	
Do.....	Mar. 21-27.....	90	52	
Do.....	Apr. 4-29.....	211	120	
On vessel:				
Steamship.....	Oct. 3.....	9		Arrived at Bangkok, Siam: Cases in coolie passengers.
Ship Selandia.....	Apr. 15.....	1		Landed at Singapore, Straits Settlements.

<sup>1</sup> From medical officers of the Public Health Service, American consuls, and other sources.

# CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued

## Reports Received from December 26, 1925, to June 25, 1926—Continued

### PLAGUE

Place	Date	Cases	Deaths	Remarks
Argentina.....				
Buenos Aires.....	Jan. 24-30.....	1		Jan. 24-30, 1926: 6 cases, occurring in interior Provinces of Salta and Santa Fe.
Azores:				
St. Michaels.....	Jan. 17-Apr. 3.....	9	4	
Belgium:				
Vilvorde.....	Dec. 1-8.....	1	1	
Brazil:				
Bahia.....	Nov. 8-Dec. 28.....	3	1	
Do.....	Dec. 27-Jan. 30.....	4	2	
Santos.....	Dec. 8-21.....		2	
Sao Paulo.....	Reported Mar. 25.....	4	1	
British East Africa:				
Kenya—				
Kisumu.....	Nov. 22-Dec. 5.....	1	2	
Do.....	Jan. 31-Mar. 20.....	15	3	
Uganda Protectorate.....	Sept. 1-Dec. 31.....	468	426	
Do.....	Jan. 1-Feb. 23.....	150	143	
Canary Islands:				
La Laguna.....	Dec. 24.....	3	2	
Las Palmas.....	Jan. do.....	1	1	
Do.....	Jan. 7.....	1	1	
Santa Cruz de Tenerife.....	Dec. 18-27.....	3		
Do.....	Dec. 23-Feb. 1.....	3		
Celebes:				
Makassar.....	Dec. 29-Feb. 2.....	12	12	Netherlands East Indies.
Ceylon:				
Colombo.....	Nov. 15-Dec. 5.....	3	3	1 plague rodent.
Do.....	Dec. 27-Jan. 16.....	2	2	
Do.....	Jan. 24-Apr. 24.....	6	6	Feb. 14-20, 1926: 2 plague rodents.
China:				
Nanking.....	Nov. 15-Apr. 24.....			Prevalent.
Ecuador:				
Ambato.....	Mar. 31.....		5	
Eloy Alfaro.....	Jan. 1-15.....	1		
Guayaquil.....	Nov. 1-Dec. 1.....	31	12	
Do.....	Jan. 1-May 15.....	66	20	Rats taken, Nov. 1-Dec. 31, 1925, 49,370; rats found infected, 281. Rats taken, Jan. 1-May 15, 1926: 93,539; rats found infected, 666.
Latacunga.....	Apr. 12.....			Present.
Recreo (country estate).....	Jan. 1-15.....	1		
Egypt:				
Alexandria.....	Mar. 10-Apr. 22.....	4	1	Jan. 1-Dec. 9, 1925: Cases, 138.
Beni-Suef.....	Nov. 18.....	1	1	Jan. 1-May 13, 1926: Cases, 32.
Do.....	May 16-20.....	5	4	
Fayoum Province.....	Dec. 3-9.....	1	1	
Gharbia Province.....	Mar. 9-30.....	5	3	
Minia Province.....	Mar. 4-May 17.....	2	1	
Suez.....	Mar. 27-May 16.....	8	2	
Greece:				
Athens.....	Nov. 1-30.....	18	4	Including Piræus.
Do.....	Jan. 1-Mar. 31.....	25	4	
Herakleion.....	Feb. 4.....	1		On island of Crete.
Patras.....	Nov. 13-Dec. 12.....	4	1	
Hawaii Territory:				
Hawaii—				
Honokaa.....	Mar. 16.....	2		1 plague-infected rodent found near Hamakua Mill Co.
Kakuihaeala.....	Mar. 19.....	1	1	1 death, suspected plague.
Paauiio.....				Jan. 20, 1926: Plague-infected rat found in vicinity.
India:				
Bombay.....	Dec. 6-12.....	1	1	Oct. 18, 1925-Jan. 2, 1926: Cases, 15,135; deaths, 10,677. Jan. 2-
Do.....	Jan. 3-May 1.....	21	18	Mar. 13, 1926: Cases, 53,563; deaths, 41,553. Mar. 21-Apr.
Calcutta.....	Dec. 6-12.....	1	1	24, 1926: Cases, 53,563; deaths, 43,425.
Karachi.....	Nov. 1-Dec. 19.....	4	3	
Do.....	Feb. 21-May 15.....	24	11	
Madras Presidency.....	Oct. 25-Nov. 7.....	75	41	
Do.....	Nov. 15-21.....	35	22	
Do.....	Dec. 20-26.....	108	64	
Do.....	Jan. 3-Apr. 21.....	1,417	846	
Punjab District.....	Apr. 2-8.....	7,336	5,379	Epidemic, May 8, 1926.
Rangoon.....	Oct. 25-Dec. 26.....	23	15	
Do.....	Dec. 27-May 8.....	150	138	

# CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued

Reports Received from December 26, 1925, to June 25, 1926—Continued

## PLAGUE—Continued

Place	Date	Cases	Deaths	Remarks
Indo-China				September-December, 1925:
Province—				Cases, 28; deaths, 26.
Cambodia	Sept. 1-Nov. 30	13	13	
Cochin China	Sept. 1-Dec. 31	15	13	
Saigon	Apr. 5-11	1		
Iraq:				
Bagdad	Dec. 13-Jan. 2	7	3	
Do	Jan. 10-Apr. 17	111	61	
Java:				
Batavia	Oct. 24-Nov. 6	94	89	Province.
Do	Nov. 14-Jan. 1	315	297	
Do	Jan. 2-Mar. 12	483	468	
Do	Mar. 19-Apr. 23	61	60	
Cheribon	Sept. 27-Oct. 17		166	
Do	Nov. 15-Dec. 26		198	
Do	Jan. 3-Mar. 6		191	
Diokjakarta	Oct. 20-Nov. 9			Epidemic in 1 locality.
Kediri	Dec. 7			Do.
Koemangan	Dec. 27-Jan. 16		114	
Do	Feb. 7-Mar. 6		103	
Pekalongan	Sept. 27-Oct. 17		42	
Do	Nov. 8-Dec. 26		252	
Do	Feb. 14-Mar. 6		90	
Probolinggo	Feb. 12			Epidemic. Port.
Rembang	Oct. 30			Do.
Surabaya	Oct. 11-Dec. 26	59	59	
Do	Dec. 27-Apr. 10	46	46	
Tegal	Sept. 27-Oct. 17	6	6	
Do	Nov. 8-Dec. 26		31	
Do	Feb. 21-Mar. 6		11	
Madagascar				Nov. 1-Dec. 31, 1925: Cases, 632;
Province—				deaths, 593. Jan. 1-31, 1926:
Ambositra	Dec. 16-31	9	7	Cases, 611; deaths, 565. Mar.
Do	Jan. 1-15	2	2	1-31, 1926: Cases, 186; deaths,
Fort Dauphin	Sept. 16-30	6	3	170.
Do	Jan. 16-Mar. 15	4	4	
Itasy	Sept. 16-Oct. 30	20	20	
Do	Nov. 16-Dec. 31	34	34	
Do	Jan. 1-15	29	29	
Do	Feb. 1-15	29	29	
Moramanga	Sept. 16-Dec. 31	49	48	
Do	Jan. 1-Mar. 31	56	52	
Tananarive				Sept. 16-Nov. 30, 1925: Cases,
Town—				366; deaths, 341. Dec. 16-31,
Tamatave (Port)	Sept. 16-Nov. 30	42	11	1925; Cases, 152; deaths, 143.
Do	Feb. 1-Mar. 15	5	3	Jan. 1-Mar. 31, 1926: Cases,
Tananarive	Sept. 16-30	2	2	683; deaths, 554.
Do	Nov. 1-30	11	11	
Do	Jan. 1-Mar. 31	38	37	
Mauritius Island	Sept. 20-Dec. 26	21	15	
Moca	Sept. 20-Dec. 26	2	2	
Pamplemousses	Oct. 1-31	2	2	
Port Louis	Oct. 1-Nov. 30	3	2	
Rivière du Rempart	Oct. 1-Dec. 31	13	9	
Morocco:				
Tangier	May 9-15	1	1	
Nigeria:				
Do	Aug. 1-Dec. 31	594	447	
Do	Jan. 1-31	24	21	
Persia:				
Teheran	Oct. 21-Nov. 21		12	
Peru:				
Barranca and Supo	Mar. 1-31	4	6	January-March, 1926: Cases, 333;
Cánete	do	1		deaths, 148.
Caras	do			Present.
Cascas	do	15	5	
Chiclayo	do		4	
Chimbote	do	16	8	Country estates.
Chincha	do	14	5	
Contumaza	do	12		
Cutorvo	do			Present.
Huacho	Jan. 26	15		Port 60 miles north of Callao.
Lacramarca	Mar. 1-31	6		
Lima	Jan. 1-31	20		In hospital. Some cases in Prov-
Mollendo	do			inces.
Do	Mar. 1-31			12 or 15 cases reported unoffi-
				cially.

# CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued

Reports Received from December 26, 1925, to June 25, 1926—Continued

## PLAGUE—Continued

Place	Date	Cases	Deaths	Remarks
Peru—Continued				
Moro.....	Mar. 1-31.....	1	1	Present.
Otuzco.....	do.....	2	1	
Pacasmayo.....	do.....	5	2	
Salaverry.....	do.....	15	5	Do.
San Pablo.....	do.....	1	1	
Trujillo.....	do.....	67	25	
Russia.....	May-June.....	256	25	
Do.....	July 1-Dec. 31.....	45	25	
Senegal.....	September-October.....	65	53	
Siam.....	Aug. 23-Dec. 26.....	16	9	
Do.....	Dec. 27-Jan. 30.....	3	3	
Bangkok.....	Nov. 15-23.....	38	33	
Do.....	Jan. 3-30.....	11	5	
Do.....	Feb. 7-20.....	8	5	
Do.....	Feb. 23-May 1.....	8	8	
Straits Settlements:				
Singapore.....	Nov. 1-Dec. 5.....	3	3	
Do.....	Jan. 3-Mar. 20.....	1	1	
Syria:				
Beirut.....	Nov. 11-20.....	1	1	
Do.....	Jan. 21-31.....	1	1	
Union of South Africa.....				Mar. 7-13, 1926: Cases, 3; European, 2. Mar. 21-27, 1926: Cases, 12; deaths, 4. Apr. 4-17, 1926: Cases, 7; deaths, 4.
Cape Province.....	Apr. 4-10.....	1	1	Native.
Cradock district.....	Apr. 11-21.....	3	3	European.
Kimberley district.....	Dec. 13-19.....	1	1	Native. On farm.
Middleburg district.....	Dec. 6-12.....	1	1	
Steynsburg district.....	Nov. 15-21.....	1	1	
Winburg district.....	Feb. 21-27.....	1	1	
Orange Free State.....				Mar. 14-Apr. 10, 1926: Cases, 11; deaths, 5.
Boshof district.....	Nov. 29-Dec. 5.....	1	1	In native.
Bothaville district.....	Dec. 6-12.....	1	1	Native. On farm.
Bradford district.....	Mar. 24-Apr. 3.....	1	1	
Grandfort district.....	Mar. 21-27.....	3	1	European, in same family, pneumonia.
Hoopstad district.....	Mar. 7-Apr. 17.....	10	5	
Kroonstad district.....	Mar. 14-20.....	1	1	Native. On farm.
Winburg district.....	Mar. 14-Apr. 3.....	11	5	
On vessel:				
Steamship Cid.....				Jan. 29, 1926. Plague rat. At Buenaventura, Colombia. Rat was killed while jumping ashore from vessel.

## SMALLPOX

Algeria:				
Algiers.....	Nov. 21-Dec. 31.....	177	64	
Do.....	Jan. 1-10.....	87	11	
Do.....	Jan. 21-May 20.....	1	1	Imported.
Arabia:				
Aden.....	Nov. 29-Dec. 5.....	1	1	
Do.....	Jan. 10-May 15.....	1	1	
Argentina:				
Rosario.....	October.....	1	1	
Australia:				
Queensland—Brisbane.....	Dec. 9-15.....	1	1	
Azores:				
Fayal Island.....	Feb. 2-Apr. 26.....	1	1	Present. Reported as alastrim.
Horta.....	Apr. 26.....	1	1	Present.
Bahamas:				
Feb. 23.....		1	1	In Nassau district. Stated to have been imported.
Brazil:				
Mannos.....	Dec. 1-31.....	12	145	
Do.....	Jan. 1-Mar. 31.....	38	13	
Para.....	Jan. 10-May 15.....	79	28	
Rio de Janeiro.....	Nov. 1-23.....	65	24	
Do.....	Dec. 6-20.....	279	224	June 27, 1925-Mar. 20, 1926: Cases, 1,080; deaths, 580.
Do.....	Dec. 27-Apr. 3.....			

# **CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued**

**Reports Received from December 26, 1925, to June 25, 1926—Continued**

## **SMALLPOX—Continued**

Place	Date	Cases	Deaths	Remarks
British East Africa:				
Kenya—				
Mombasa	Nov. 15-Dec. 19	14	6	
Do.	Dec. 27-Mar. 20	2		
Tanganyika territory	Apr. 11-17	2		
Dar-es-Salaam	Feb. 21-27	1		
Uganda Protectorate	Sept. 1-Oct. 31	8	4	
Do.	Feb. 1-28	1		
British South Africa:				
Northern Rhodesia	Jan. 5-11	2		
Southern Rhodesia	Nov. 13-Dec. 23	3		
Canada				Sept. 13-Jan. 2: In 7 Provinces, 188 cases. Jan. 3-May 29, 1926: Cases, 542.
Alberta				Jan. 3-May 1, 1926: Cases, 70.
Calgary	Dec. 13-19	1		From Drumbheller, vicinity of Calgary.
British Columbia—				
Vancouver	Jan. 4-May 30	3		
Victoria	Mar. 21-27	2		
Manitoba				Jan. 3-May 8, 1926: Cases, 78.
Winnipeg	Dec. 13-19	2		
Do.	Jan. 3-Apr. 10	16	1	
New Brunswick—				
Northumberland	Dec. 6-13	1		
Ontario				Dec. 1-31, 1925: Cases, 32. Jan. 3-May 8, 1926: Cases, 269.
Admaston	Jan. 1-Feb. 1	16		Township.
Alice and Fraser	Feb. 1-28	6		Do.
King	do.	7		Do.
Wilmot	do.	6		Do.
Belleville	do.	4		
Hamilton	June 6-12	1		
Kingston	Mar. 8-May 15	2		
Kitchener	do.	26		
North Bay	Feb. 14-Mar. 14	7		
Ottawa	Dec. 6-12	2		
Do.	Jan. 3-May 29	3		
Sarnia	Mar. 14-May 8	9		
Toronto	Dec. 27-Jan. 2	1		
Do.	Jan. 3-May 15	31		
Trenton	Jan. 3-Apr. 17	15		
Saskatchewan				Jan. 3-May 8, 1926: Cases, 131.
Moose Jaw	Jan. 3-Mar. 20	2		
Regina	Jan. 24-May 1	5		
Saskatoon	Feb. 14-20	1		
Ceylon:				
Colombo	Dec. 6-12	1		Port case.
Do.	Jan. 3-Feb. 6	5		
Chile:				
Punta Arenas	Dec. 13-26		8	
Do.	Dec. 27-Jan. 2		4	
China:				
Amoy	Oct. 25-Dec. 19		1	
Do.	Jan. 10-Apr. 17		35	
Antung	Dec. 7-20	2		
Do.	Mar. 21-May 16	9		
Changsha	Feb. 21-27			Present.
Chungking	Nov. 15-17			Do.
Do.	Feb. 28-Apr. 3			Do.
Foochow	Nov. 1-May 1			Do.
Hankow	Nov. 14-Dec. 26	4		
Do.	Jan. 10-Mar. 6	3		
Hongkong	Nov. 22-Dec. 26	4		
Do.	Jan. 3-Apr. 24	19	9	
Manchuria—				
An-shan	Dec. 6-12	1		
Do.	Jan. 10-May 8	15		South Manchuria Railway.
Changchun	do.	51	1	Do.
Dairen	Oct. 19-Dec. 27	73	15	Do.
Do.	Dec. 28-Apr. 11	90	28	Do.
Fushun	Jan. 17-May 8	7		Do.
Harbin	Jan. 1-May 6	38		Do.
Kai-yuan	Jan. 10-May 8	8		Do.
Kungehuling	Jan. 31-May 8	4		Do.
Lio-yang	Jan. 17-May 8	7		Do.
Mukden	Oct. 24-Nov. 15	1		Do.
Do.	Jan. 24-May 8	9		Do.

# **CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued**

**Reports Received from December 26, 1925, to June 25, 1926—Continued**

## **SMALLPOX—Continued**

Place	Date	Cases	Deaths	Remarks
China—Continued.				
Manchuria—Continued.				
Penhsih	May 2-8	2	—	South Manchuria Railway.
Suping Kai	Mar. 14-May 1	4	—	Do.
Tieh-ling	Oct. 26-Nov. 15	2	—	Do.
Do.	Apr. 18-24	1	—	Do.
Nanking	Nov. 21-Dec. 26	—	—	Do.
Do.	Dec. 27-May 8	—	—	Do.
Shanghai	Oct. 25-Jan. 2	37	36	
Do.	Jan. 3-May 1	64	143	Cases, foreign only.
Swatow	Nov. 22-May 8	—	—	Prevalent.
Tientsin	Nov. 1-Dec. 19	2	—	
Do.	Jan. 23-May 8	3	—	
Chosen				
Chinampo	Apr. 1-30	1	—	
Seishin	Jan. 1-Apr. 30	61	34	
Seoul	Apr. 1-30	1	—	
Curacao	May 3-9	1	—	From Trinidad.
Egypt:				
Alexandria	Dec. 3-31	5	2	
Do.	Jan. 8-14	2	1	
Do.	Jan. 29-May 13	81	17	
Cairo	Dec. 25-31	14	—	
Do.	Jan. 1-14	8	1	
Port Said	Feb. 26-Mar. 4	1	—	
Estonia				November, 1925: Cases, 3.
France				September-December, 1925: Cases, 253.
Do.	Jan. 1-Feb. 28	90	—	
Havre	Jan. 25-31	—	9	
Paris	Mar. 1-Apr. 30	11	2	
St. Etienne	Apr. 17-30	1	1	
French Settlements in India	Jan. 3-Mar. 6	167	150	
Gold Coast	September, December	58	5	
Do.	Jan. 1-Feb. 28	133	5	
Great Britain:				
England and Wales				Nov. 15-Dec. 26, 1925: Cases, 790; Dec. 27-May 22, 1926: Cases, 4,806.
Bradford	May 2-15	3	—	
Hull	Dec. 27-Jan. 23	29	—	
Do.	Feb. 7-Mar. 27	9	—	
Leeds	Jan. 14-May 29	5	—	
London	Jan. 31-Feb. 6	—	1	
Newcastle-on-Tyne	Nov. 29-Dec. 19	6	—	
Do.	Dec. 27-May 20	44	1	
Nottingham	Nov. 22-Dec. 26	9	—	
Do.	Dec. 27-Apr. 24	8	—	
Sheffield	Nov. 22-Dec. 12	7	—	
Do.	Dec. 20-26	3	—	
Do.	Dec. 27-Mar. 20	18	—	
Do.	Apr. 25-May 8	3	—	
South Shields	Feb. 9	—	—	Reported present in severe form.
Greece				Oct. 1-31, 1925: Cases, 16.
Athens	Nov. 1-Dec. 31	18	1	
Do.	Jan. 1-Mar. 31	87	6	
Kalamata	Mar. 1-7	1	—	From Patras.
Saloniki	Feb. 10-Apr. 12	—	3	
Guadeloupe (West Indies)				Apr. 22-May 31, 1926: 1 case. Alastrim.
India				Oct. 18-Dec. 26, 1925: Cases, 19,472; deaths, 4,440. Dec. 27, 1925-Apr. 24, 1926: Cases, 114,490; deaths, 20,048.
Bombay	Nov. 8-Dec. 26	26	20	
Do.	Dec. 27-May 1	415	221	
Calcutta	Nov. 8-Dec. 26	48	25	
Do.	Dec. 27-Apr. 3	620	397	
Karachi	Nov. 1-21	23	—	
Do.	Nov. 20-Dec. 5	4	2	
Do.	Dec. 13-19	3	—	
Do.	Dec. 29-May 15	176	53	
Madras	Nov. 15-Dec. 26	17	5	
Do.	Dec. 27-May 15	162	29	
Rangoon	Oct. 25-Dec. 26	7	1	
Do.	Dec. 27-Jan. 16	13	1	
Do.	Jan. 24-Mar. 9	70	17	
Do.	Mar. 21-May 8	33	10	

# CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued

Reports Received from December 26, 1925, to June 25, 1926—Continued

## SMALLPOX—Continued

Place	Date	Cases	Deaths	Remarks
Indo-China				September-December, 1925: Cases, 534; deaths, 110.
Province—				
Annam	Sept. 1-Dec. 31	232	44	
Cambodia	do	84	34	
Cochin China	do	106	51	
Saigon	Dec. 21-27	2	1	
Do	Jan. 1-Mar. 23	14	2	Including 100 square kilometers of surrounding country.
Tonkin	Sept. 1-Dec. 31	153	2	
Iraq:				
Bagdad	Nov. 1-Dec. 26	19	15	Sept. 6-Oct. 17, 1925: Cases, 81; Deaths, 40.
Do	Dec. 27-May 1	27	14	
Basra	do	70	60	
Italy				Aug. 2, 1925-Jan. 2, 1926: Cases, 52. Jan. 3-Mar. 27, 1926: Cases 38.
Catania	Feb. 15-28	7	1	
Do	Apr. 27-May 2	4	—	
Genoa	Jan. 21-Feb. 10	4	—	
Rome	Oct. 12-25	1	—	
Do	Feb. 22-23	1	—	Occurring in consular district.
Jamaica				Nov. 29-Dec. 26, 1925: Cases, 95. Dec. 27, 1925-Apr. 24, 1926: Cases, 509. Reported as alastrim.
Kingston	Nov. 29-Dec. 26	43	—	Reported as alastrim.
Do	Dec. 27-Jan. 30	48	—	Do.
Do	Feb. 28-Apr. 24	36	—	Do.
Japan:				
Kobe	Mar. 14-May 1	4	—	
Nagasaki	Feb. 15-25	2	—	
Taiwan	Nov. 11-Dec. 10	3	—	
Do	Mar. 21-31	3	—	
Yokohama	Dec. 14-20	1	—	
Do	Feb. 23-Apr. 24	73	12	
Java:				
Batavia	Oct. 24-Dec. 25	8	—	
Do	Feb. 20-Mar. 19	6	—	
Buitenzorg	Nov. 24-Dec. 4	1	—	
Cheribon	Nov. 8-Dec. 12	2	—	
Do	Jan. 31-Feb. 6	—	1	
East Java and Madoera	Mar. 28-Apr. 10	9	—	
Kraksaan	Oct. 11-17	11	—	
Malang	Oct. 11-Dec. 23	2	—	
Do	Dec. 27-Jan. 16	3	2	
North Bantam	Oct. 4-17	4	—	
Pekalongan	Oct. 25-31	1	—	
Pontianak	Jan. 31-Feb. 6	—	1	
Probolinggo	Oct. 11-17	1	—	
Serang	Feb. 14-27	5	—	
South Bantam	Feb. 23-Mar. 27	1	—	
Surabaya	Oct. 11-Dec. 26	633	104	
Do	Dec. 27-Mar. 13	141	43	
Tegal	Oct. 4-10	9	1	
Latvia				December, 1925: Cases, 3.
Malta	Nov. 1-Dec. 21	21	3	
Do	Jan. 1-Feb. 23	20	—	
Martinique	May 10	—	—	Prevalent.
Fort de France	Apr. 11-May 1	6	—	Alastrim.
Mexico				July-September, 1925: Deaths, 1,157.
Aguascalientes	Dec. 13-Jan. 2	4	3	
Do	Jan. 3-30	—	7	
Do	Feb. 14-May 22	—	18	
Camargo	May 22	2	—	
Chihuahua	May 9-17	7	—	
Ciudad Juarez	May 9-24	—	2	
Durango	Dec. 1-31	—	1	
Do	Jan. 1-31	—	2	
Guadalajara	Dec. 27-June 7	—	28	
Mexico City	Nov. 28-Dec. 5	1	—	Including municipalities in Federal District.
Do	Jan. 3-May 22	34	—	Do.
Saltillo	Apr. 4-10	1	—	
San Luis Potosi	Jan. 17-Mar. 20	—	53	
Do	Mar. 28-June 5	—	44	
Tampico	Dec. 21-Jan. 2	1	1	
Do	Jan. 2-Mar. 10	8	—	
Torreon	Nov. 1-Dec. 31	—	51	
Do	Jan. 1-May 31	—	90	
Vera Cruz	Mar. 29-Apr. 4	5	1	

# **CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued**

**Reports Received from December 26, 1925, to June 25, 1926—Continued**

## **SMALLPOX—Continued**

Place	Date	Cases	Deaths	Remarks
Netherlands:				
The Hague	Jan. 30-Mar. 6	2	1	
Nigeria:				
Do.	Jan. 1-31	135	1	Aug. 1-Dec. 31, 1925; Cases, 389; deaths, 6.
Palestine:				
Hebron	Jan. 26-Feb. 28	3		
Jerusalem	Feb. 1-28	1		
Tiberias	Feb. 9-15	1		
Persia:				
Teheran	July 23-Dec. 22		775	
Do.	Dec. 23-Mar. 21		165	
Peru:				
Arequipa	Oct. 1-Dec. 31		2	
Poland:				
				Nov. 1-28, 1925; Cases, 9. Jan. 1-Mar. 27, 1926; Cases, 20. Mar. 1-28, 1926; Deaths, 6.
Portugal:				
Lisbon	Oct. 4-31	124		
Do.	Nov. 16-Dec. 27		60	
Do.	Nov. 14-Dec. 26	187		
Do.	Dec. 27-May 29	159	32	
Oporto	Nov. 22-Dec. 19	2	3	
Do.	Dec. 27-May 15	5	1	
Rumania:				
August-October		3		
Russia:				
				May-June, 1925: Cases, 2,333. July 1-Dec. 31, 1925: Cases, 4,019.
Senegal:				
Dakar	Apr. 19-25	1		
Siam:				
Bangkok	Dec. 20-25	3	1	
Do.	Dec. 26-Mar. 6	81	37	
Do.	Mar. 14-Apr. 10	30	18	July 12-Sept. 5, 1925: Cases 21; deaths, 6.
Sierra Leone:				
Konno district	Dec. 16-31	5		
Spain:				
Madrid	Year 1925		18	
Do.	Jan. 1-31		1	
Malaga	Nov. 29-Dec. 5		2	
Do.	Dec. 27-Jan. 2		1	
Valencia	Dec. 20-26	1		
Do.	Dec. 27-Jan. 2	1		
Do.	Jan. 10-Feb. 6	0		
Do.	Feb. 14-May 29	22	3	
Straits Settlements:				
Penang	Mar. 28-Apr. 3		1	
Singapore	Dec. 20-26	1		
Do.	Jan. 10-Mar. 27	8	2	
Sumatra:				
Medan	Feb. 14-27	2		
Switzerland:				
Lucerne	Oct. 1-Nov. 30	8		June 28-Nov. 21, 1925: Cases, 62; Dec. 27, 1925-Apr. 3, 1926: Cases, 61.
Do.	Jan. 1-Mar. 31	0		
Zurich	Dec. 27-Jan. 2	1		
Syria:				
Damascus	Apr. 11-20	1		
Trinidad (West Indies):				
Port of Spain	Jan. 1-Apr. 3	12		
Tripolitania:				
Do.	July 1-Dec. 31	34		
Do.	Jan. 1-Feb. 23	12		
Tunisia:				
Tunis	Nov. 21-30	2		Jan. 1-Mar. 31, 1926: Cases, 123.
Do.	Dec. 11-31	10	1	
Do.	Jan. 1-Apr. 20	7	1	
Turkey:				
Constantinople	Mar. 9-23	2	3	
Union of South Africa:				
Cape Province	Jan. 17-23			Outbreaks,
Orange Free State	Apr. 25-May 1			Do.
Kuruman district	Jan. 10-16			Do.
Ladybrand district	Dec. 27-Jan. 2			Do.
Transvaal:				
Bellast district	do			Do.
Germiston district	Jan. 2-9			Do.
Pretoria district	Dec. 6-12			Outbreaks. In native compounds.
On vessel	Feb. 21	2		Mexican steamer Montezuma, at Port of Ensenada, Mexico.



# **CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued**

**Reports Received from December 26, 1925, to June 25, 1926—Continued**

## **TYPHUS FEVER**

Place	Date	Cases	Deaths	Remarks
Algeria:				
Algiers.....	Nov. 1-Dec. 20.....	2		
Do.....	Jan. 1-Apr. 10.....	13		
Argentina:				
Rosario.....	Oct. 13-Dec. 31.....	2		
Bulgaria.....	Sept. 1-Dec. 31.....	50	3	
Do.....	Jan. 1-Feb. 28.....	112		
Sofia.....	Dec. 25-31.....	1		
Do.....	Jan. 8-14.....	2		
Canary Islands.				
Santa Cruz de Tenerife.....	Mar. 8-14.....	1		
Chile.....				Dec. 15-31, 1925: Cases, 46. Jan. 1-15, 1926: Cases, 23.
Achao.....	Dec. 15-31.....	1		
Do.....	Jan. 1-15.....	1		
Ancud.....	do.....	2		
Antofagasta.....	Apr. 11-May 15.....	5		
Bulnes.....	Dec. 15-31.....	1		
Chillan.....	do.....	24		
Concepcion.....	do.....	6		
Linares.....	do.....	1		
Los Angeles.....	do.....	5		
Penco.....	do.....	2		
Salamanca.....	do.....	17		
San Carlos.....	do.....	1		
Talca.....	do.....	1		
Valparaiso.....	Nov. 29-Jan. 2.....	5	2	
Do.....	Jan. 3-Mar. 27.....	4		
China:				
Antung.....	Nov. 29-Dec. 27.....	5	1	
Do.....	Jan. 4-May 16.....	38		
Hongkong.....	Dec. 27-Jan. 2.....	1		
Manchuria—				
Harbin.....	Dec. 17-Feb. 4.....	3		
Do.....	Apr. 2-8.....	1		
Shanghai.....	Mar. 14-20.....	1		
Chosen.....				Jan. 1-31, 1926: Cases, 70; deaths, 7.
Czechoslovakia.....	October-December.....	146	1	
Do.....	Jan. 1-Feb. 28.....	67		
Egypt:				
Alexandria.....	Jan. 8-Feb. 25.....	2		
Do.....	Apr. 30-May 6.....	1		
Cairo.....	Nov. 5-Dec. 18.....	3	2	
Port Said.....	Nov. 19-25.....	1		
Do.....	Mar. 12-May 16.....	3		
Estonia.....	Jan. 1-Apr. 30.....	23		
Finland.....				October, 1925: 1 case.
France.....	July-October.....	4		
Greece:				December, 1925: Cases, 12.
Athens.....	Nov. 1-30.....	11	2	
Do.....	Jan. 1-Mar. 31.....	45	9	
Saloniki.....	Dec. 29-Jan. 4.....	1		
Do.....	Feb. 2-Apr. 19.....	4		
Hungary.....				November-December, 1925: Cases, 16. Jan. 1-31, 1926: Cases, 6.
Ireland:				
Cork County—				
Cork.....	Dec. 26-Jan. 1.....	2		
Do.....	Jan. 2-8.....	5		
Do.....	May 2-8.....	1		
Dumaway.....	Nov. 14.....	1		
Galway County.....	Oct. 17.....	1		
Kerry County—				
Listowel.....	Mar. 7-13.....	1		Rural district.
Tipperary County—				
Cashel District.....	May 9-15.....	1		
Wexford County—				
Gorey.....	do.....	1		Do.
Italy.....	Feb. 21-Mar. 27.....	38		
Latvia.....	October-December.....	12		
Do.....	Feb. 1-Mar. 31.....	20		
Riga.....	Oct. 1-31.....	2		
Lithuania.....				September-December, 1925: Cases, 26; deaths, 1. Jan. 1-Feb. 28, 1926: Cases, 62; deaths, 1.

# **CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued**

**Reports Received from December 26, 1925, to June 25, 1926—Continued**

## **TYPHUS FEVER—Continued**

Place	Date	Cases	Deaths	Remarks
Mexico.....				July-September, 1925: Deaths, 90.
Aguascalientes.....	Dec. 14-19.....	1	1	
Do.....	May 2-8.....	1	1	
Durango.....	Dec. 1-31.....	1	1	
Do.....	Jan. 1-31.....	1	1	
Guadalajara.....	Dec. 3-23.....	2	2	
Do.....	Dec. 20-Jan. 4.....	1	1	
Mexico City.....	Nov. 22-Dec. 26.....	50	50	Including municipalities in Federal District.
Do.....	Dec. 27-Mar. 20.....	89	89	Do.
Do.....	Mar. 28-Apr. 10.....	11	11	Do.
Do.....	Apr. 25-May 1.....	10	10	Do.
San Luis Potosi.....	Feb. 6-13.....	1	1	
Tampico.....	Dec. 21-Jan. 10.....	1	1	
Torreón.....	November, 1925.....	1	1	
Vera Cruz.....	Feb. 12.....	1	1	
Morocco.....	August-December.....	93	93	
Do.....	Jan. 1-Feb. 28.....	130	130	
Norway.....				November-December, 1925: Cases, 2.
Palestine:				
Ekron.....	Mar. 30-Apr. 5.....	1	1	
Gaza.....	Dec. 18.....	1	1	
Haifa.....	Mar. 16-May 10.....	3	3	
Jaffa.....	Dec. 1-7.....	1	1	
Do.....	Feb. 22-Mar. 1.....	1	1	
Nazareth.....	Nov. 3-9.....	1	1	
Ramleh.....	Mar. 10-22.....	1	1	
Safed.....	Nov. 24-30.....	1	1	
Tel-Aviv.....	do.....	1	1	
Do.....	Mar. 9-15.....	1	1	
Tiberias.....	do.....	2	2	
Peru:				
Arequipa.....	October-December.....		3	
Do.....	Feb. 1-Mar. 31.....		2	
Poland.....	Oct. 11-Jan. 2.....	462	44	
Do.....	Jan. 3-Mar. 27.....	1,408	114	
Rumania.....				July 1-Dec. 31, 1925: Cases, 348; deaths, 41. Jan. 1-Feb. 28, 1926: Cases, 324; deaths, 21.
Constantza.....	Feb. 1-Mar. 10.....	2	2	Many June, 1925: Cases, 10,680.
Russia.....				July 1-Dec. 31, 1925: Cases, 11,263. Jan. 1-Mar. 31, 1926: Cases, 180.
Do.....				
Tunisia:				
Tunis.....	Mar. 21-May 10.....	6	6	
Turkey:				
Constantinople.....	Jan. 24-30.....	3	3	
Do.....	Feb. 9-Mar. 31.....	6	4	
Union of South Africa.....				October, 1925: Cases, 88; deaths, 7 (colored). Cases, Europeans, 7. December, 1925: Cases, 78; deaths, 9. Colored: Cases, 73; deaths, 9. Jan. 1-Mar. 31, 1926: Cases, 290; deaths, 20; Apr. 4-24, 1926: Outbreaks. Colored.
Cape Province.....	Oct. 1-31.....	63	5	
Do.....	Nov. 8-Dec. 31.....	47	8	
Do.....	Jan. 1-Mar. 31.....	159	21	
Do.....	Apr. 30-May 1.....			Outbreaks in four districts, in 10 localities.
Grahamstown.....	Jan. 24-30.....	2	2	
Kimberley district.....	Apr. 11-17.....	1	1	At Beaconsfield location.
Middleburg district.....	Dec. 6-12.....	1	1	European. On farm.
Molteno district.....	do.....			Outbreaks.
Steynsburg district.....	do.....			Do.
Natal.....	Oct. 1-Dec. 5.....	1	1	
Do.....	Jan. 1-Mar. 31.....	13	1	Colored.
Durban.....	Jan. 3-Apr. 24.....	11	1	
Port Shepstone.....	Apr. 4-10.....	1	1	
Orange Free State.....	Nov. 29-Dec. 5.....	23	1	
Do.....	Dec. 1-31.....	8	1	
Do.....	Jan. 1-Feb. 28.....	8	8	Do.
Bethulia district.....	Dec. 6-12.....			Outbreaks.
Bothaville district.....	do.....	1	1	Native. On farm.

# CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER. AND YELLOW FEVER—Continued

Reports Received from December 26, 1925, to June 25, 1926—Continued

## TYPHUS FEVER—Continued

Place	Date	Cases	Deaths	Remarks
Natal—Continued.				
Transvaal.....	Oct. 1-31.....	1	1	
Do.....	Dec. 1-31.....	18		
Do.....	Feb. 1-Mar. 31.....	9	4	
Johannesburg district.....	Mar. 1-20.....	3		
Bloubaan district.....	Dec. 27-Jan. 2.....			
Yugoslavia.....				Outbreak. On farm. Jan. 1-Mar. 21, 1926: Cases, 105; deaths, 18.

## YELLOW FEVER

Brazil.....				Mar.-May 17, 1926: Cases, 30; several deaths, in Parahyba; a smaller number in Natal.
Gold Coast.....	Sept. 1-Dec. 31.....	4	3	
Nigeria.....	August-October.....	3	2	
Senegal.....	November, 1925.....	3	2	



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